

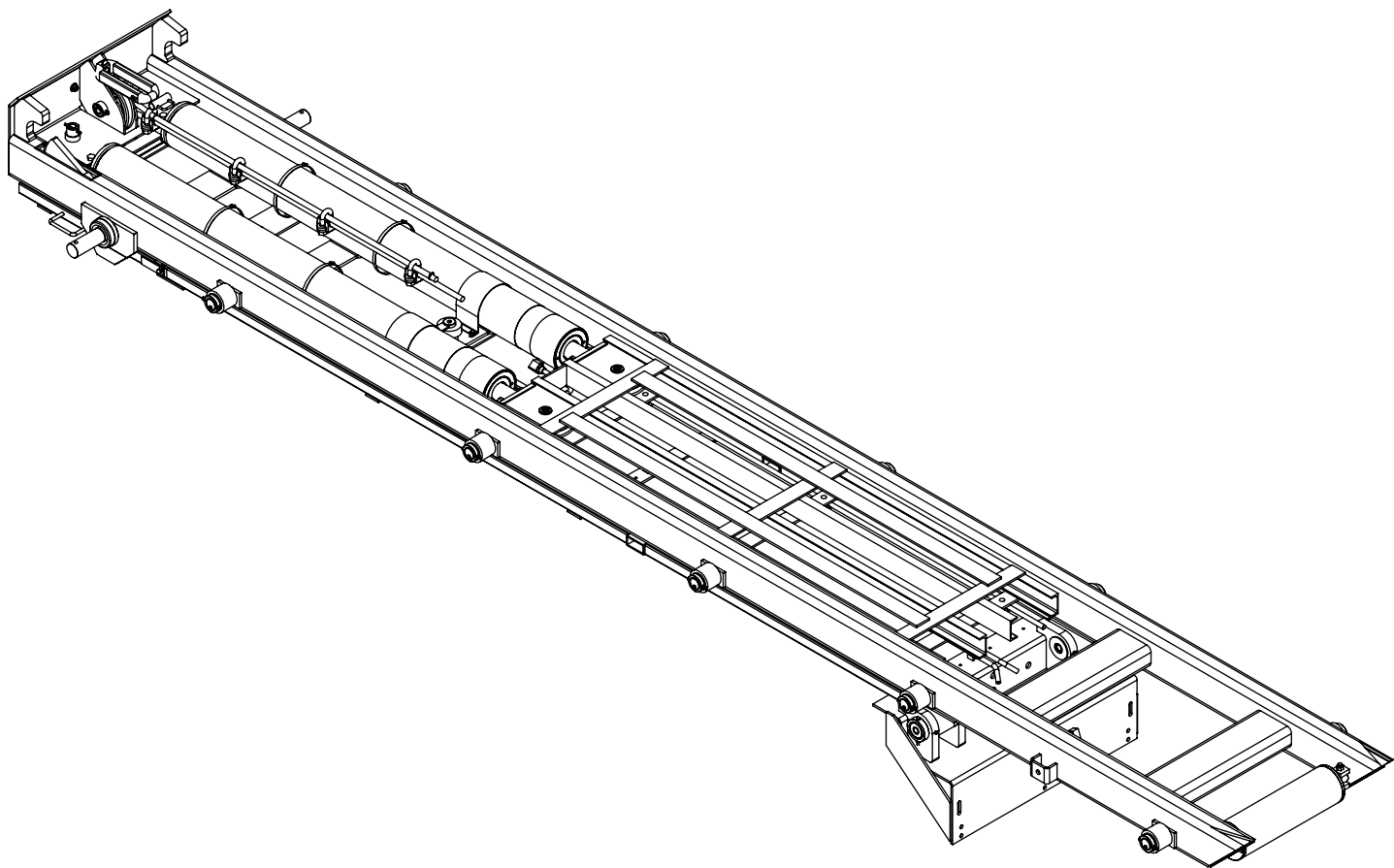


# SI CABLE HOIST

## OWNERS' MANUAL

SI-60 and SI-75 Models

*Safety • Operation • Installation • Parts*



**Stellar Industries, Inc.**

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# Stellar Cable Hoist Manual Revisions

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Date of Revision	Section Revised	Description of Revision

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## AN OVERVIEW TO OWNER, OPERATOR AND SERVICE PERSONNEL ABOUT SAFETY

As the owner or employer, it is your responsibility to instruct the operator in the safe operation of this equipment and to provide the operator with properly maintained equipment.

**FAILURE TO READ THIS MANUAL BY ANYONE WHO WILL OPERATE, SERVICE, OR WORK AROUND THIS CABLE HOIST IS A MISUSE OF THE EQUIPMENT. DEATH OR SERIOUS INJURY WILL RESULT FROM IMPROPER USE OR MAINTENANCE OF THIS MACHINE.**

Occupational safety is a prime concern of Stellar Industries in the design and production of this cable hoist. Our goal in writing this manual was the safety of the operator and others who work around this equipment.

It is your responsibility to know the specific requirements, governmental regulations, precautions and work hazards that exist in the operation and maintenance of this cable hoist. You shall make these available and known to all personnel working with and around the equipment, so that all of you will take the necessary and required safety precautions.

**FAILURE TO HEED THESE INSTRUCTIONS CAN RESULT IN SERIOUS INJURY OR DEATH.**

It is also your responsibility to operate and maintain your cable hoist with caution, skill, and good judgment. Following the recognized safety procedures will help you avoid accidents. Modification to any part of this cable hoist can create a safety hazard and therefore shall not be made without the manufacturer's written approval. Use only factory approved accessories, options, and parts on this equipment. The rebuilding or remounting of this equipment requires the mounting procedures and retesting to be in accordance with factory instructions. Safety covers and devices must remain installed and maintained in proper working condition. Safety decals must be maintained, be completely legible, and be properly located. If safety covers, devices, or decals are missing, they must be replaced with the proper designated Stellar part.

**Be capable, careful, and concerned! Make safety your everyday business!**

### Attention!

According to Federal Law (49 cfr part 571), each final-stage manufacturer shall complete the vehicle in such a manner that it conforms to the standards in effect on the date of manufacture of the incomplete vehicle, the date of final completion, or a date between those two dates. This requirement shall, however, be superseded by any conflicting provisions of a standard that applies by its terms to vehicles manufactured in two or more stages.

Therefore, the installer of Stellar cable hoists

is considered one of the manufacturers of the vehicle. As such a manufacturer, the installer is responsible for compliance with all applicable federal and state regulations. They are required to certify that the vehicle is in compliance with the Federal Motor Vehicle Safety Standards and other regulations issued under the National Traffic and Motor Vehicle Safety Act.

Please reference the Code of Federal Regulations, title 49 - Transportation, Volume 5 (400-999), for further information, or visit [www.gpoaccess.gov/nara/index.html](http://www.gpoaccess.gov/nara/index.html) for the full text of Code of Federal Regulations.



# Introduction

Stellar Cable hoists are designed to provide safe and dependable service for a variety of operations. With proper use and maintenance, these cable hoists will operate at peak performance for many years.

To promote this longevity, carefully study the information contained in this manual before putting the equipment into service. Though it is not intended to be a training manual for beginners, this manual should provide solid guidelines for the safe and proper usage of the cable hoist.

Once you feel comfortable with the material contained in this manual, strive to exercise your knowledge as you safely operate and maintain the cable hoist. This process is vital to the proper use of the unit.

## A few notes on this manual:

A copy of this manual is provided with every cable hoist and shall remain with the cable hoist at all times. Information contained within this manual does not cover all maintenance, operating, or repair instructions pertinent to all possible situations.

Please be aware that some sections of this

manual contain information pertaining to Stellar manufactured cable hoists in general and may or may not apply to your specific model.

This manual is not binding. Stellar Industries, Inc. reserves the right to change, at any time, any or all of the items, components, and parts deemed necessary for product improvement or commercial/production purposes. This right is kept with no requirement or obligation for immediate mandatory updating of this manual.

## In closing:

If more information is required or technical assistance is needed, or if you feel that any part of this manual is unclear or incorrect, please contact the Stellar Customer Service Department by phone at 800-321-3741 or email at [service@stellarindustries.com](mailto:service@stellarindustries.com).

## ATTENTION

**Failure to adhere to the instructions could result in property damage or even serious bodily injury to the operator or others close to the cable hoist.**

**For Technical Questions, Information, Parts, or Warranty, Call Toll-Free at  
800-321-3741**

Hours: Monday - Friday, 8:00 a.m. - 5:00 p.m. CST

Or email at the following addresses:

**Technical Questions, and Information**

[service@stellarindustries.com](mailto:service@stellarindustries.com)

**Order Parts**

[parts@stellarindustries.com](mailto:parts@stellarindustries.com)

**Warranty Information**

[warranty@stellarindustries.com](mailto:warranty@stellarindustries.com)



# Chapter 1 - Safety

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## **Please Read the Following Carefully!**

*This portion of the manual contains information regarding all Stellar manufactured Cable Hoists. Some items contained within this chapter may not apply to your specific equipment.*

Safety should be the number one thought on every operator's mind. Three factors should exist for safe operation: a qualified operator, well-maintained equipment, and the proper use of this equipment. The following information should be read and understood completely by everyone working with or near the Cable Hoist prior to putting the unit into operation.

Please take note that Stellar Industries, Inc. is not liable for accidents incurred by the Cable Hoist because of non-fulfillment from the operator's side of current rules, laws, and regulations.

## **General Safety**

It is the responsibility of the owner to instruct the operator in the safe operation of your equipment and to provide the operator with properly maintained equipment.

Trainees or untrained persons shall be under the direct supervision of qualified persons.

Do not operate equipment under the adverse influence of alcohol, drugs, or medication.

Read all safety decals on the equipment and understand their meaning.

## **Personal Safety**

Keep clear of all moving parts.

Never allow anyone under any portion of the hoist unless the hoist is firmly resting in the hoist props.

Always wear the prescribed personal safety devices.

Always wear approved accident-prevention clothing such as: protective helmets, anti-slip shoes with steel toes, protective gloves, anti-noise headphones, protective glasses, breathing apparatus, and reflective jackets. Consult your employer regarding current safety regulations and accident-prevention equipment.

Do not wear rings, wristwatch, jewelry, loose-fitting or hanging clothing such as ties, torn garments, scarves, unbuttoned jackets or unzipped overalls, which could get caught up in the moving parts of the Cable Hoist.

Keep a first-aid box and a fire extinguisher readily available on the truck. Regularly check to make sure the fire extinguisher is fully charged and the first-aid kit is stocked.

Do not use controls and hoses as hand-holds. These parts move and cannot provide stable support.

Do not allow unauthorized personnel or equipment to enter within 10 feet of Cable Hoist operating area.

Never allow anyone to ride the Cable Hoist or load.

## **Operation Safety**

Never operate the hoist unless the hydraulic system, including the cylinders and lines, are full of oil and free of air.

Check the area for power lines and overhead obstructions.

Do not load, dump or unload a container on uneven ground.

Do not move the truck while the hoist and container are raised. A raised load creates a top heavy unstable load.

Do not use a chain between the reeving cable and the container. A chain will not withstand the force applied to the cable.

Do not use any method to hold a valve open which will not let the valve close automatically when released.

Always keep the cable centered on the hoist frame. Do not allow the cable to rub on any surface when loading or unloading a container.

Do not operate the reeving cylinders to load or unload a container unless the front of the hoist frame is above the top of the truck cab.

### **ATTENTION**

**Stellar Industries, Inc. is not liable for accidents incurred by the Cable Hoist because of the operator's non-fulfillment of current rules, laws and regulations.**

### **Maintenance Safety**

Never modify or alter any of the equipment, whether mechanical, electrical, or hydraulic, without Stellar Industries' approval.

Be sure safety decals are clean and in place.

Check the reeving cable for wear and fraying.

Do not perform any maintenance or repair work on the Cable Hoist unless authorized and trained to do so.

Release system pressure before attempting to make adjustments or repairs.

Do not attempt service or repair when PTO is engaged.

# Chapter 2 - Operation

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## Job-Site Set-Up

*Thoroughly plan the lift before positioning the vehicle. Consider the following:*

1. The vehicle should be positioned in an area free from overhead obstructions to eliminate the need for repositioning.
2. Position the vehicle so that it is impossible for any portion of the equipment to come within the minimum required safe distance of any power line. Maintain a clearance of at least 10 feet between any part of the Cable Hoist, load line, or load, and any electrical line or apparatus carrying up to 50,000 volts. One foot additional clearance is required for every additional 30,000 volts or less. Remember to allow for winds that cause power lines to sway. It is recommended that a signal person be used when the vehicle is set-up near power lines.
3. The vehicle should also be positioned on a firm and level surface that will provide adequate support for the body.
4. The parking brake must be removed to allow the truck to roll under the body while loading.

## Cable Hoist Controls

1. Be familiar with the sequence and operation of the Cable Hoist controls.
2. Each individual Cable Hoist function should have control function decals. Replace them immediately if they are missing or illegible.
3. Keep hands, feet and control levers free from mud, grease and oil.
4. Be familiar with the control levers and how they operate before attempting to operate the Cable Hoist.
5. Be prepared before beginning operation of the Cable Hoist:
  - All protective guards must be in place.
  - Be aware of the surroundings: low branches, power lines, unstable ground.
  - Be sure all safety devices provided are

in place and in good operating condition.

- Be prepared for all situations. Keep fire extinguisher and first aid kit near.
- Be sure all regular maintenance has been performed.
- Visually inspect all aspects of the Cable Hoist for physical damage.
- Check for fluid leaks.

## Operator Requirements

*Operation is limited to the following people:*

1. Qualified individual.
2. Trainees under direct supervision of the qualified individual.
3. Test or maintenance individual.
4. Cable Hoist Inspector.

*Operators must:*

1. Demonstrate the ability to understand all decals, the owner's manual, and any other information required for safe operation of the Cable Hoist.
2. Be able to demonstrate the ability to safely control the Cable Hoist.
3. Know all safety regulations.
4. Be responsible for maintenance requirements.
5. Understand and be fully capable of implementing all emergency procedures.
6. Understand the operating procedures as outlined by this manual, ANSI B30.5 and Federal/State Laws.

## Operator Conduct

1. Operators will not engage in any operation that would cause them to divert attention away from the operation of the Cable Hoist.
2. Operators are responsible for all operations under their direct control.
3. Operators will not leave a suspended load unattended.
4. Operators will be familiar with the equipment and the maintenance required for proper care.

# General Guidelines for Operation of the Cable Hoist

## Loading a Container

1. Back the truck up to the container to be loaded and align the hoist rails with the container long sills. Caution: Be sure the area in which the hoist is to be operated is clear of personnel and obstacles - overhead and on the ground.
2. Engage the PTO and raise the hoist until the rear roller is on the ground.
3. Set the parking brakes and retract the reeving cylinders to connect the cable to the container. Caution: Do not attempt to load a container with faulty equipment. Check the condition of the cable, cable end, and container cable connection. Never lift a container heavier than the rated capacity of the hoist.
4. Release the parking brake and allow the truck to roll under the container. Extend the reeving cylinders to pull the container onto the hoist. The container long sills must be kept on the hoist rollers.
5. Once the center of gravity of the container is in front of the rear hinge, the hoist can be lowered until the front is just above the top of the truck cab.
6. Continue pulling the container forward until it is securely locked into the front stops. Caution: Rear hold-down devices are required on the hoist and the containers.
7. Lower the hoist to the full-down position and disengage the PTO.

## Dumping a Container

1. While the hoist is in the full-down position, open the container door and secure it. Caution: Be sure that the truck is on firm, level ground before dumping. If one side of the load breaks loose in this high center of gravity position, a truck on unstable footing may roll over on its side.
2. Engage the PTO and raise the hoist until the load slides out of the container. Caution: Do not pull forward until the hoist is lowered to the full-down position.

3. Lower the hoist to the full-down position and disengage the PTO.

## Unloading a Container (O.R. and I.O.)

1. Back the truck up in front of where the container is to be spotted. Allow room for the container to roll off of the hoist.
2. Raise the hoist and retract the reeving cylinders. Allow gravity to pull the container to the ground.
3. Once the rear rollers are on the ground, allow the truck to roll out from under the container.
4. Once the container is on the ground, lock the truck brakes and disconnect the cable and secure it to the hoist.
5. Lower the hoist to the full down position. Pull away from the container. Disengage the PTO.

## Unloading a Container (Extendable Tail)

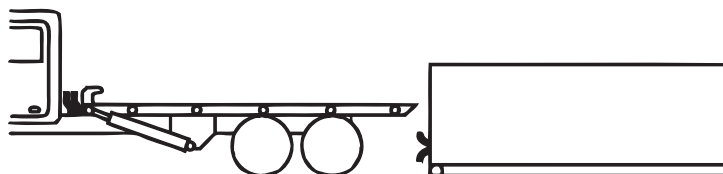
1. Back the truck up in front of where the container is to be spotted. Allow room for the container to roll-off of the hoist.
2. Raise the hoist and retract the reeving cylinders. Allow gravity to pull the container to the ground. Once the rear rollers are on the ground, allow the truck to roll out from under the container.
3. Alternate extending the cable and the tail until the container is on the ground.
4. Lock the truck brakes and disconnect the cable and secure it to the hoist.
5. Lower the hoist and retract the tail section. Disengage the PTO before driving away.

## Cable Hoist Check List

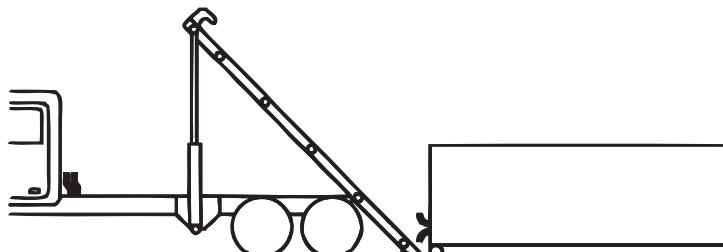
1. Check hydraulic oil level with all cylinders retracted.
2. Grease all lubrication points.
3. All rollers and sheaves are free to rotate.
4. Tires are properly inflated.
5. The container lock is free to move and works properly.

## Loading Operation

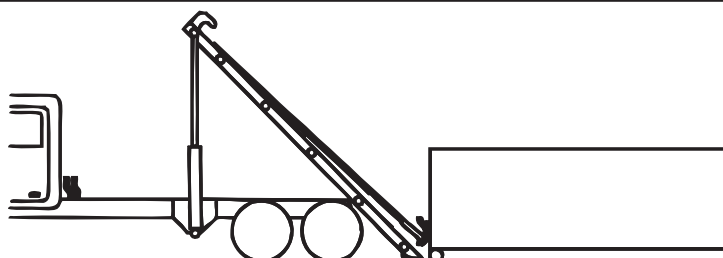
- ① Back the truck up to the container to be loaded and align the hoist rails with the container long sills.



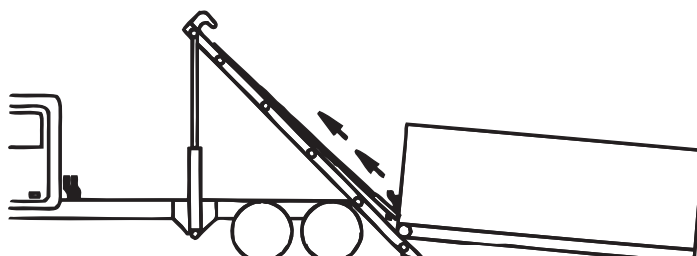
- ② Engage the PTO and raise the hoist until the rear roller is on the ground.



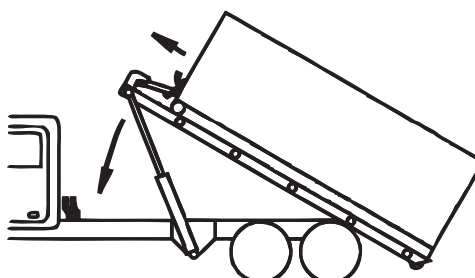
- ③ Set the parking brakes and retract the reeving cylinders to connect the cable to the container.



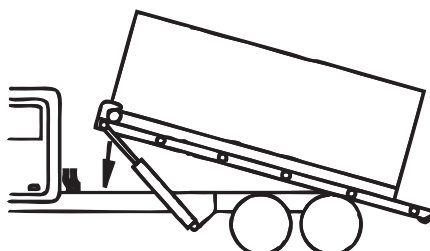
- ④ Release the parking brake and allow the truck to roll under the container. Extend the reeving cylinders to pull the container onto the hoist. The container long sills must be kept on the hoist rollers.



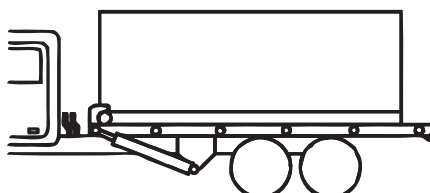
- ⑤ Once the center of gravity of the container is in front of the rear hinge, the hoist can be lowered until the front is just above the top of the truck cab.



- ⑥ Continue pulling the container forward until it is securely locked into the front stops. Caution: Rear hold-down devices are required on the hoist and the containers.

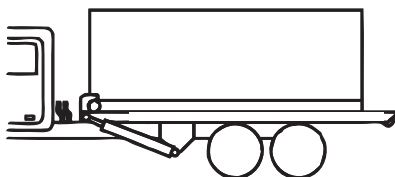


- ⑦ Lower the hoist to the full-down position and disengage the PTO.

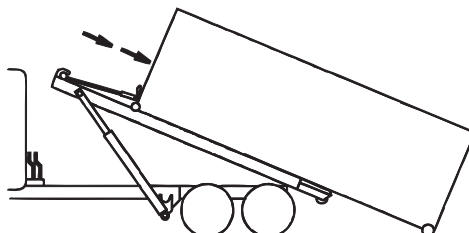


## Unloading Operation - O.R. and I.O. Models

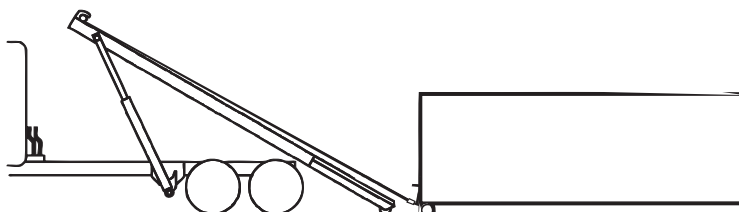
- ① Back the truck up in front of where the container is to be spotted. Allow room for the container to roll-off of the hoist.



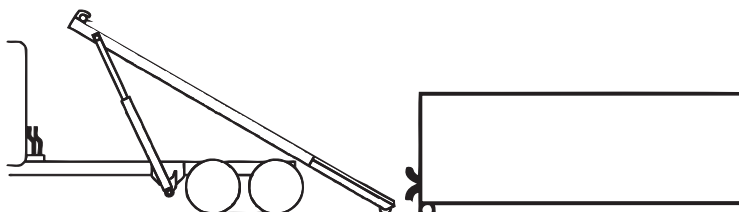
- ② Raise the hoist and retract the reeving cylinders. Allow gravity to pull the container to the ground.



- ③ Once the rear rollers are on the ground, allow the truck to roll out from under the container.



- ④ Once the container is on the ground, lock the truck brakes and disconnect the cable and secure it to the hoist.



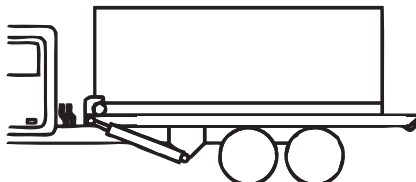
- ⑤ Lower the hoist to the full down position. Pull away from the container. Disengage the PTO.



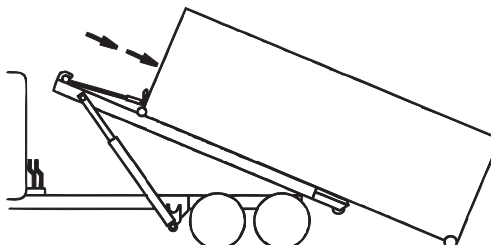


## Unloading Operation - Extendable Tail Models

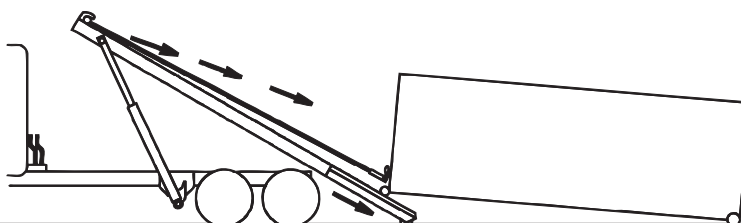
- ① Back the truck up in front of where the container is to be spotted. Allow room for the container to roll-off of the hoist.



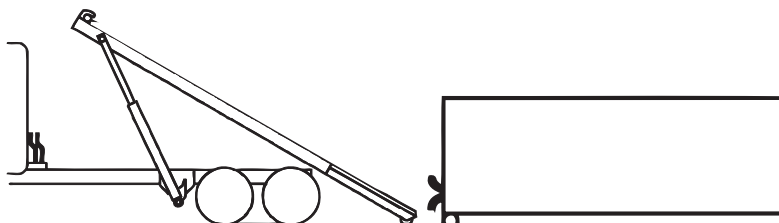
- ② Raise the hoist and retract the reeving cylinders. Allow gravity to pull the container to the ground. Once the rear rollers are on the ground, allow the truck to roll out from under the container.



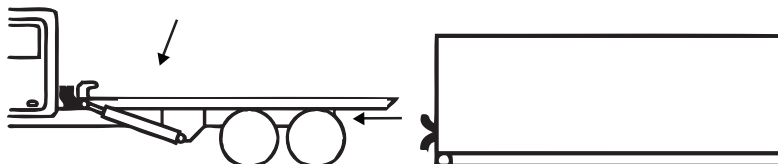
- ③ Alternate extending the cable and the tail until the container is on the ground.



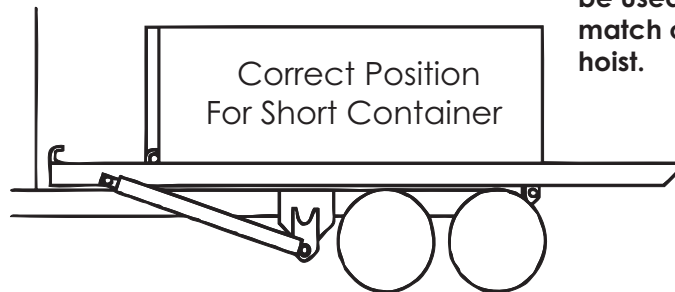
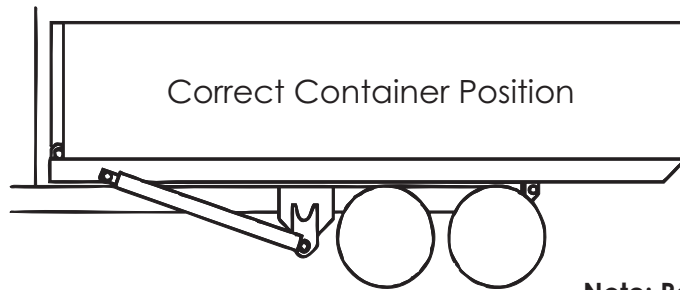
- ④ Lock the truck brakes and disconnect the cable and secure it to the hoist.



- ⑤ Lower the hoist and retract the tail section. Disengage the PTO before driving away.

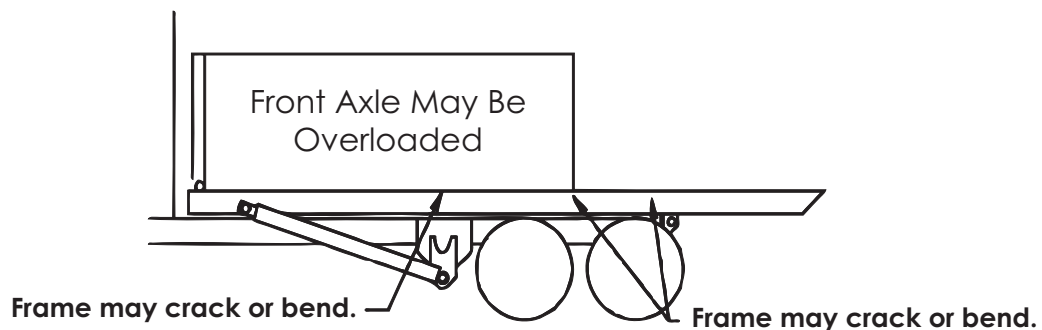


## Correct Roll-Off Container Loads



**Note:** Removable front stops must be used and rear hold downs must match on container and roll-off hoist.

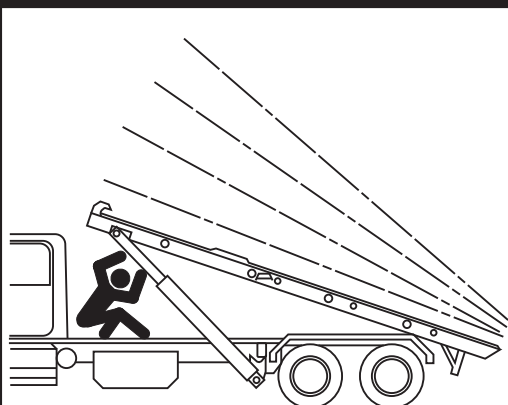
## Unsafe Roll-Off Container Loads



# Hoist Prop Operation



## WARNING



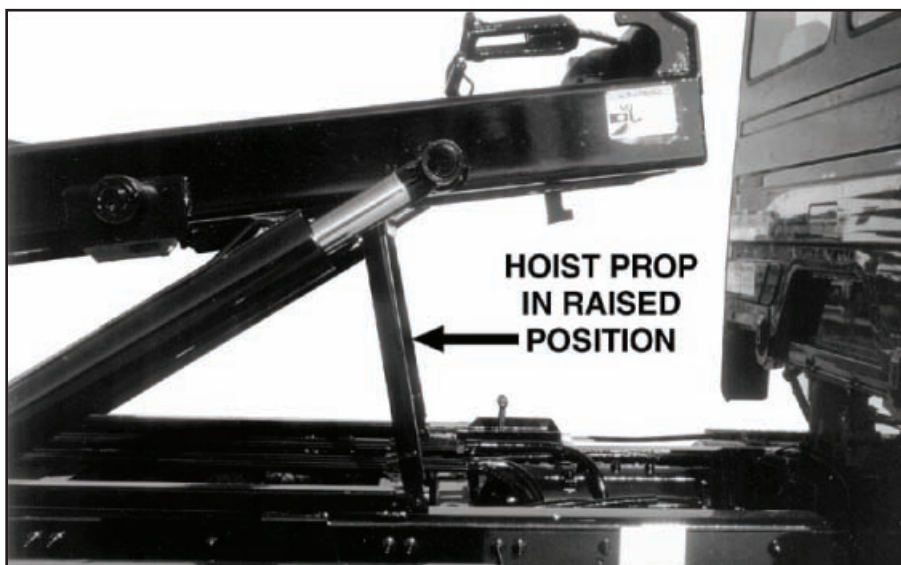
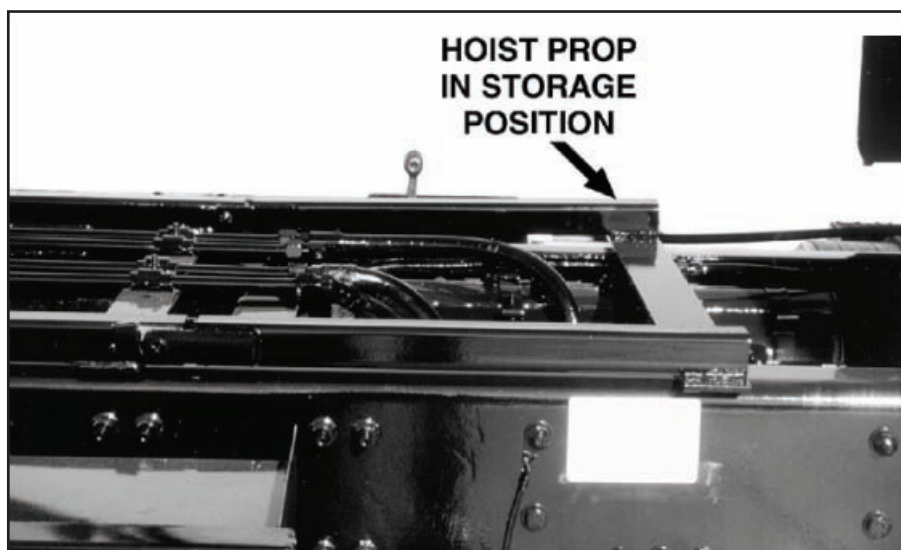
**BEFORE WORKING AROUND A RAISED HOIST, THE HOIST MUST BE SUPPORTED BY THE HOIST PROP.**

(SEE HOIST PROP OPERATING INSTRUCTIONS)

FAILURE TO DO SO COULD RESULT IN SERIOUS INJURY OR DEATH.

IF THE HOIST PROPS CANNOT BE USED, CONSULT THE MAINTENANCE SECTION OF THE OPERATION MANUAL FOR THE PROPER PRECAUTIONS.

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# Chapter 3 - Maintenance

*Please read the following before performing any maintenance on the Cable Hoist.*

1. Only authorized service personnel are to perform maintenance on the Cable Hoist.
2. Disengage the PTO before any service or repair is performed.
3. Do not disconnect hydraulic hoses while there is still pressure in those components.
4. Before disconnecting hydraulic components, shut off the engine, release any air pressure on the hydraulic reservoir, and move control levers repeatedly through their operating positions to relieve all pressures.
5. Keep the Cable Hoist clean and free from grease build-up, oil and dirt to prevent slippery conditions.
6. Perform all safety and maintenance checks before each period of use.
7. Replace parts with Stellar Industries, Inc. approved parts only.
8. Immediately repair or have repaired any components found to be inadequate.

## Maintenance Procedures

1. Position the Cable Hoist where it will be out of the way of other operations or vehicles in the area.
2. Place all controls in the off position and secure operating features from inadvertent motion.
3. Relieve hydraulic oil pressure from all hydraulic circuits before loosening or removing hydraulic components.
4. Label or tag parts when disassembling.

## Periodic Inspection

*Periodic Inspection should occur while the Cable Hoist is in use. For the duration of the usage, inspect the Cable Hoist for all of the following:*

1. Loose bolts and fasteners.
2. All pins, bushings, shafts, and gears for wear, cracks, or distortion to include all pivot points, and bushings.
3. Hydraulic systems for proper operating pressure.
4. Main frame mount bolts.
5. Cylinders for:
  - A. Damaged rods.
  - B. Dented barrels.
  - C. Drift from oil leaking internally.
  - D. Leaks at rod seals or holding valves.
6. PTO and hydraulic pump(s) for leaks.
7. Hydraulic hose and tubing for evidence of damage such as blistering, crushing, or abrasion.
8. Presence of this owner's manual.

## Daily Inspection

*Daily Inspection should occur each day before the Cable Hoist is put into use. Each day, inspect the Cable Hoist for all of the following:*

1. Hydraulic oil level.
2. Loose parts or damage to structures or weld.
3. Cylinder movement due to leakage.
4. Hoses for evidence of oil leaks.
5. Controls for malfunction or adjustment.
6. Parking brake operation.
7. All securing hardware such as cotter pins, snap rings, hairpins, and pin keepers for proper installation.
8. All safety covers for proper installation.
9. Cylinder holding valves for proper operation.
10. Equipment for missing, illegible, or defaced operating decals and safety signs.
11. Inspect the wire rope for fraying or other wear.

## Monthly Inspection

*Monthly Inspection should occur at the beginning of every work month. Each month, inspect the Cable Hoist for all of the following:*

1. Frame bolt tightness - turn barrel nuts and mounting bolts during the first month of operation on new machines and then quarterly thereafter.
2. Cylinders and valves for leaks.
3. Lubrication.
4. Structural weldments for bends, cracks, or breaks.
5. All pins and keepers for proper installation.
6. All control, safety, and capacity placards for readability and secure attachment.
7. Inspect all electrical wires and connections for worn, cut, or deteriorated insulation and bare wire. Replace or repair wires as required.
8. Lubrication of all points requiring lubrication.

## General Service

*The following general suggestions should be helpful in analyzing and servicing your Cable Hoist. Using the following systematic approach should be helpful in finding and fixing problems:*

1. Determine the problem.
2. List and record possible causes.
3. Devise checks.
4. Conduct checks in a logical order to determine the cause.
5. Consider the remaining service life of components against the cost of parts and labor necessary to replace them.
6. Make the necessary repair.
7. Recheck to ensure that nothing has been overlooked.
8. Functionally test the new part in its system.

## Inspection of Sheaves

Under normal conditions, machines should receive periodic inspections, and their overall condition recorded. Such inspections usually include the sheaves, and any other parts that may come into contact with the wire rope and subject it to wear. As an additional precaution, rope related working parts, particularly in the area described below, should be re-inspected prior to the installation of a new cable.

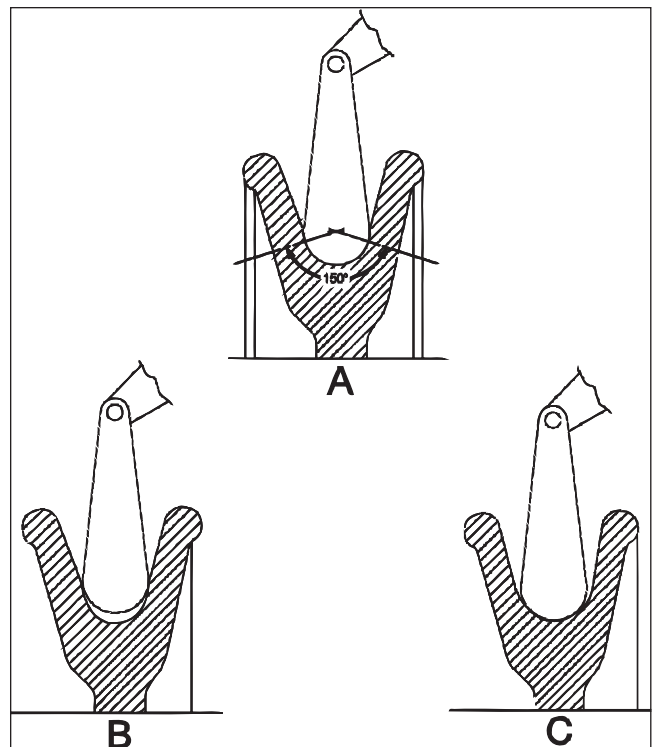
The very first item to be checked when examining the sheaves is the condition of the grooves. To check the size, contour and amount of wear, a groove gage is used. As shown in the illustration to the right of this paragraph, the gage should contact the groove for about 150° of arc.

Two types of groove gages are in general use and it is important to note which of these is being used. The two differ by their respective percentage over nominal.

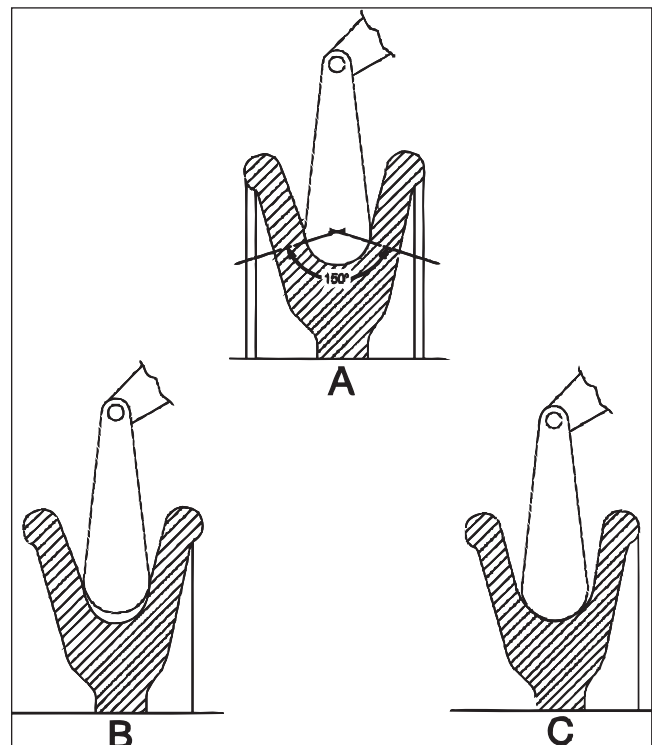
For new or re-machine grooves, the groove gage is nominal plus the full oversize percentage. The gage carried by most wire rope representatives today is used for worn grooves and is made nominal plus 1/2 the oversize percentage.

The latter gage is intended to act as a sort of "no-go" gage. Any sheave with a groove smaller than this must be replaced or, in all likelihood, the existing rope will be damaged.

Experience has clearly demonstrated that the service life of the wire rope will be materially increased by strict adherence to these standards.



Cross-sections illustrating three sheave-groove conditions. A is correct, B is too tight, and C is too loose.



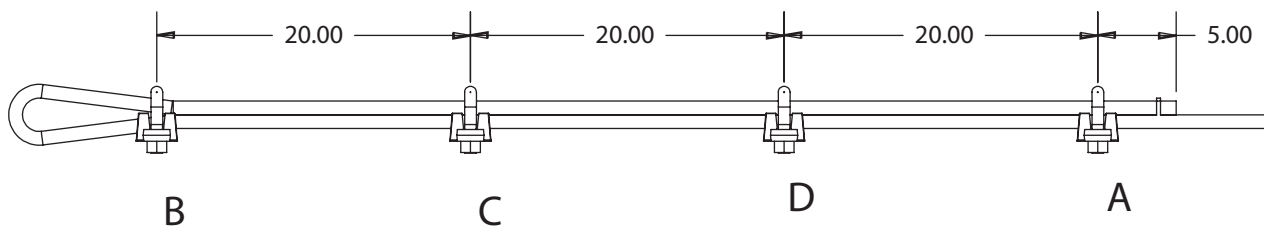
Cross-sections illustrating three sheave-groove conditions. A is correct, B is too tight, and C is too loose.

# Cable Replacement

Important: Standard replacement cable must be 7/8" diameter 6 x 37 extra improved plow steel with steel core (6 x 37 EXIWRC) with a 4.00" swaged button x 75' (174" & 182" CT, or) 77 feet (194" CT) in length.

1. Remove the cable clamps and discard the old cable.
2. Inspect all the sheaves (See Inspection of Sheaves on page 12).
3. Install cable end onto cable. Thread cable through sheaves and guides, etc. Loop cable through cable anchor and install clamps following the diagram below. Torque all bolts evenly to 225 ft. lbs.

## CABLE CLAMP DETAIL



## CLAMP INSTRUCTIONS

1. INSTALL CLAMP "A" TORQUE NUTS TO 225 FT-LBS.
2. INSTALL CLAMP "B" SNUG NUTS ON CABLE.
3. INSTALL CLAMPS "C" & "D" AS SHOWN SNUG NUTS.
4. APPLY TENSION TO CABLE.
5. TORQUE NUTS ON "B", "C" & "D" TO 225 FT-LBS.
6. CLAMP NUTS MUST FACE DOWN.

## Cleanliness

An important item in preserving the long life of the cable hoist is keeping dirt, grime, and corrosive material out of the working parts. Thoroughly wash and grease the cable hoist periodically.

## Choice Lubricants for DX Bearings

### Greases Recommended

Type of Grease	Description
Premium Quality Multi-Purpose	Stabilized, Anti-Oxidant Lithium Base Lithium Base with 3% Molybdenum Disulfide High Drop Point
Multi-Purpose	Calcium Based, for General Automotive and Industrial Use Calcium Grease, Water Stabilized, High Drop Point
Anti-Friction Bearing	Calcium Based with EP Additives Lithium Based Sodium Based
Extreme Pressure (EP)	Lithium Based with EP Additives Calcium Based with EP Additives
High Temperature	Modified Sodium Based, High Drop Point
Transmission	Semi-Fluid, Calcium Based
Molybdenum Filled	Lithium Based with 2% Molybdenum Disulfide
Graphite Filled	Sodium Based with 2% Graphite
Block Grease	Sodium Based Solid Grease
White Grease	Aluminum Complex Based with Anti-Oxidant & Rust Inhibitors & Zinc Oxide Additives
Silicone	Lithium Based with Silicone Oil Lubricant

### Greases Not Recommended

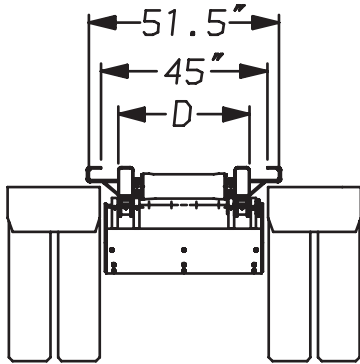
Type of Grease	Description
Cup Grease	Light Service Calcium or Sodium Based Grease
Graphite Filled	Greases with More than 10% Graphite
Molybdenum Filled	Greases with More than 10% Molybdenum Disulfide
Fluorocarbon	Low Molecular Weight Chlorofluoroethylene Polymer with Inert Thickeners
White Grease	Calcium Based, Zinc Oxide Filled



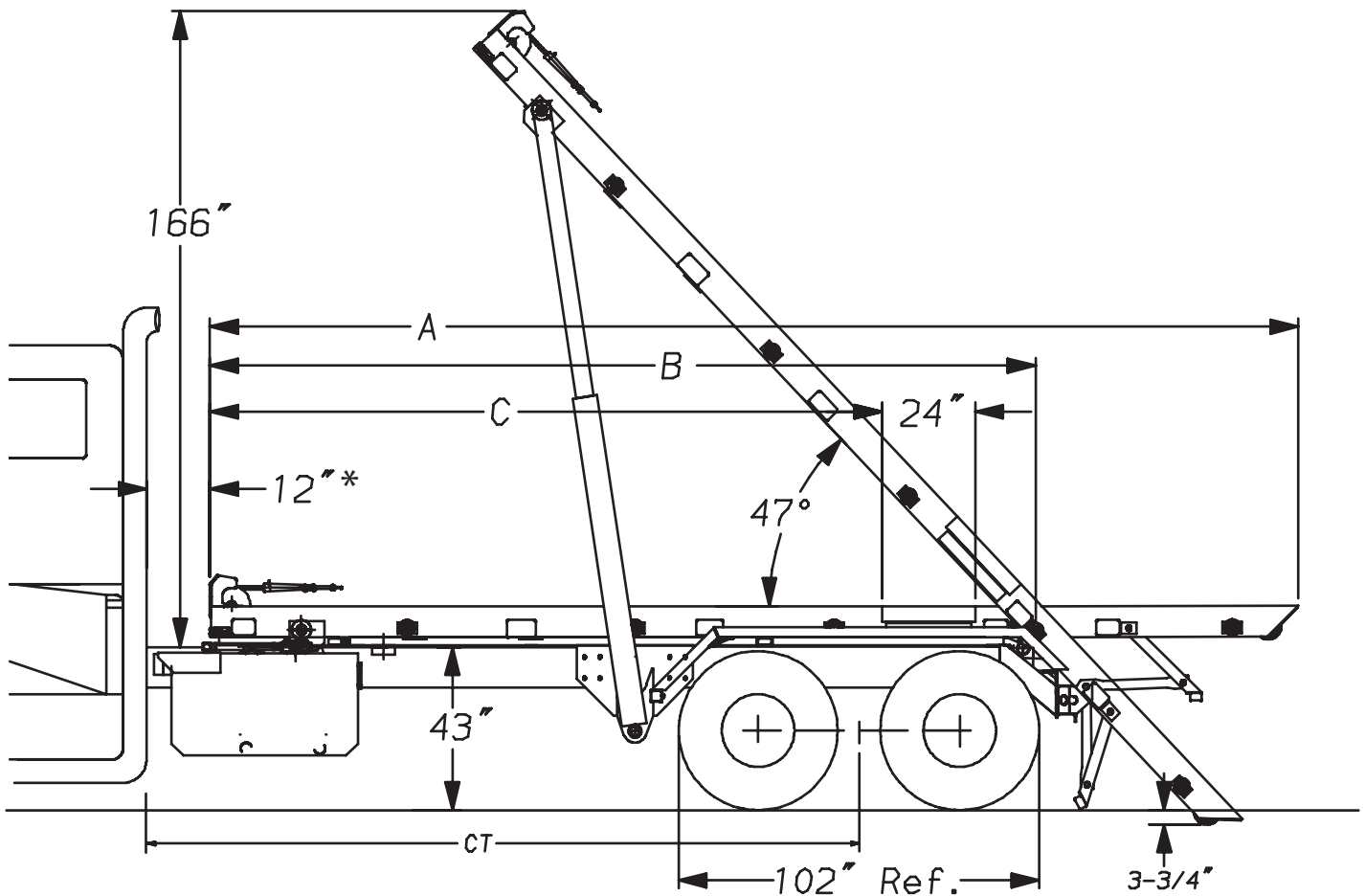
# Chapter 4 - Specifications

<b>Chassis C.T.:</b>	See chart on next page.		
<b>Frame Width:</b>	35-1/2"		
<b>Minimum GVWR:</b>	18,000 lbs. Front, 44,000 lbs. Rear		
<b>Frame Height:</b>	43"		
<b>Sub-Frame:</b>	Full length 2 x 4 Tube		
<b>Load Rating:</b>	60,000 lbs., 75,000 lbs.		
<b>Dump Angle:</b>	47°		
<b>Operating Pressure:</b>	1,850 PSI (60,000 lbs), 2,150 PSI (75,000 lbs)		
<b>Gear Pump:</b>	35 GPM @ 1,500 RPM		
<b>Operation:</b>	Inside Cab Cable Controls Standard		
<b>Weight:</b>	6,400 lbs. - 7,400 lbs.		
<b>Cylinders:</b>	Twin Double Acting		
	6 x 72	Lift	Model SI-60/75
	7 x 80	Reeving	Model SI-60/75
	7 x 90	Reeving	Model SI-60/75
<b>Low Pressure Hydraulic System</b>			
<b>Gear Driven Hydraulic Pump</b>			
<b>Large 3" Rear Pivot Pin</b>			
<b>Hold-down compatible with ANSI Z245.6 Type "U" Containers</b>			

# Cable Hoist Dimensions



Specifications Chart						
Models	A	B	C	D	CT (Cab to Trunnion)	
					w/o Autotarper	w/ Autotarper
SI-60-174 OR/IO	281"	210"	174"	35.5"	174"	180"
SI-60-182 OR/IO	289"	218"	174"	35.5"	182"	188"
SI-60-194 OR/IO	301"	230"	186"	35.5"	194"	200"
Extended Tail Models	A	B	C	D	CT (Cab to Trunnion)	
					w/o Autotarper	w/ Autotarper
SI-60-174 ORX	237"	210"	174"	35.5"	174"	180"
SI-60-182 ORX	245"	218"	174"	35.5"	182"	188"
SI-60-194 ORX	257"	230"	186"	35.5"	194"	200"
SI-60-174 IOX	278.5"	210"	174"	35.5"	174"	180"
SI-60-182 IOX	286.5"	218"	174"	35.5"	182"	188"
SI-60-194 IOX	298.5"	230"	186"	35.5"	194"	200"

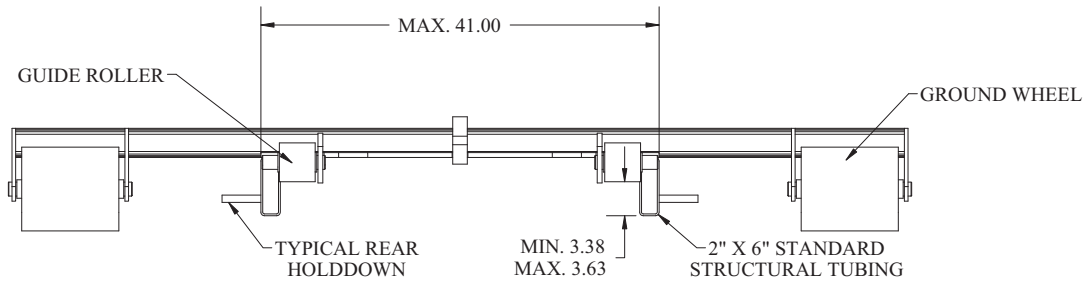


\*Autotarper installation requires 12" of unobstructed space behind the truck cab.

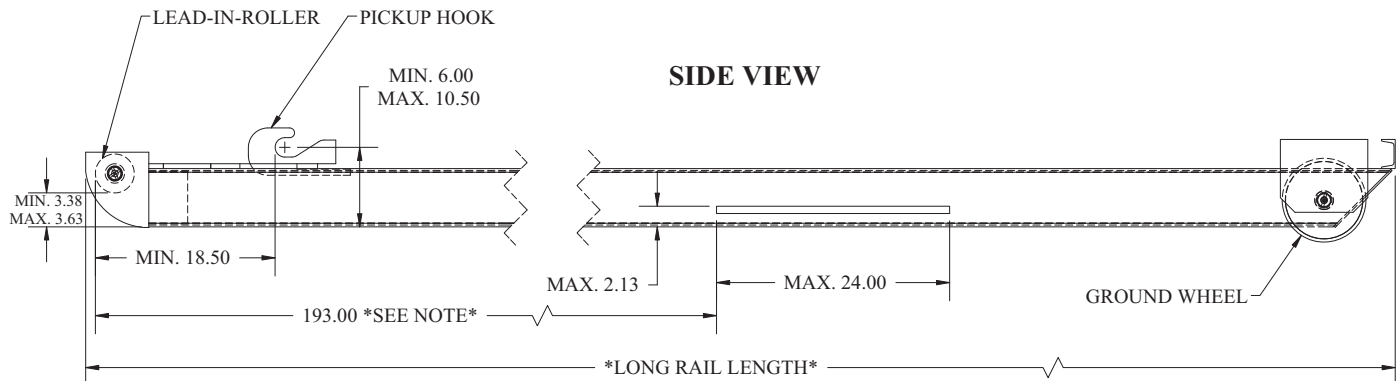
# Container Subframe

**NOTE:**  
ALL DIMENSIONS ARE IN ACCORDANCE WITH  
ANSI Z245.60 TYPE "U" CONTAINER REQUIREMENTS

## FRONT VIEW



## SIDE VIEW



## \*NOTE\*

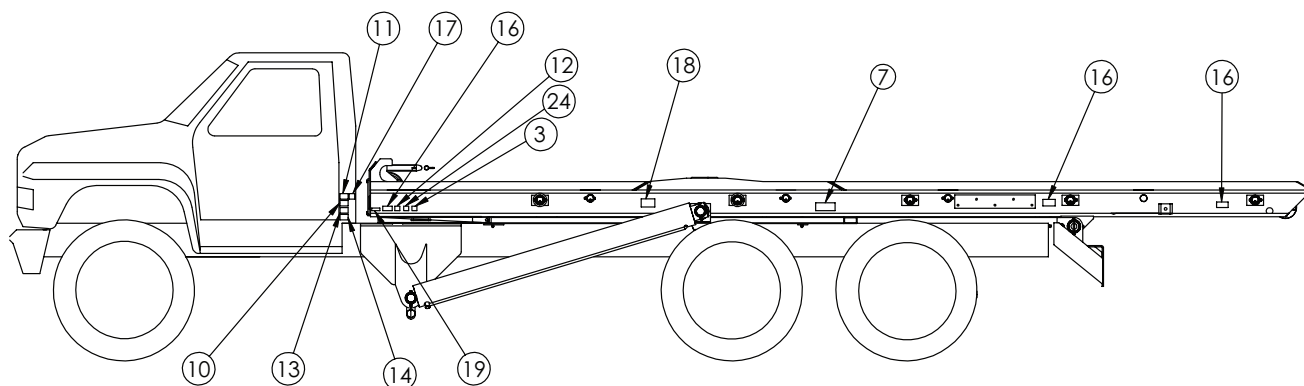
IF LONG RAIL LENGTH IS GREATER THAN OR EQUAL TO 12FT. AND LESS THAN 18FT, REAR HOLDDOWN DIMENSION IS 147.50 IN. PLUS 1 IN. MINUS 0 IN. FROM FRONT OF LEAD-IN-ROLLER TO THE FRONT OF THE HOLDDOWN.

IF LONG RAIL LENGTH IS GREATER THAN OR EQUAL TO 18FT. AND LESS THAN 24FT, REAR HOLDDOWN DIMENSION IS 193.00 IN. PLUS 1 IN. MINUS 0 IN. FROM FRONT OF LEAD-IN-ROLLER TO THE FRONT OF THE HOLDDOWN.



# Chapter 5 - Decals

## Decal Kit Placement



Item	PN	Description	Qty.
1	45702	TAPE CONSPICUITY YELLOW 9.00 IN <sup>a</sup>	2
2	45701	TAPE CONSPICUITY RED 9.00 IN <sup>b</sup>	2
3	16094	DECAL STELLAR LOGO 5.00X13.00 REFLECT	2
4	46657	DECAL TAIL	2
5	45981	DECAL WINCH <sup>c</sup>	2
6	46071	DECAL HOIST	2
7	45553	DECAL WARNING RAISED HOIST	2
8	45807	VALVE PLATE <sup>d</sup>	1
9	45691	DECAL HOIST INSTRUCTIONS	1
10	45692	DECAL WARNING CONTAINER <sup>e</sup>	2
11	45693	DECAL CAUTION OPERATION	1
12	45694	DECAL PROP INSTRUCTIONS	2
13	45695	DECAL WARNING UNEVEN GROUND <sup>e</sup>	2
14	45696	DECAL DANGER POWER LINES HOIST <sup>e</sup>	2
15	45697	DECAL CAUTION PTO SPEED <sup>c</sup>	1
16	25627	DECAL CRUSH POINT	6
17	45698	DECAL WARNING CABLE <sup>e</sup>	2
18	45557	DECAL DANGER STAND CLEAR	2
19	C5942	PLATE SERIAL # STELLAR TRUCKS	1
20	45699	DECAL ICC BUMPER REQUIREMENT <sup>c</sup>	1
21	45906	DECAL HOIST UP <sup>c</sup>	1
22	49546	TAPE CONSPICUITY RED/WHITE 38.00FT <sup>f</sup>	1
23	49547	TAPE CONSPICUITY WHITE 4.00FT <sup>f</sup>	1
24	35234	DECAL STELLAR MADE IN THE USA	1

<sup>a</sup> ON FRONT OF REAR FENDER (NOT SHOWN)

<sup>b</sup> ON BACK OF REAR FENDER (NOT SHOWN)

<sup>c</sup> IN CAB (NOT SHOWN)


<sup>d</sup> ON TOP OF HYD. RSRVR (NOT SHOWN)

<sup>e</sup> QTY 1 IN CAB (NOT SHOWN)

<sup>f</sup> SEE PAGE 38 FOR PLACEMENT (NOT SHOWN)

**Note: See page 41 for Reflective Tape Placement.**

# Safety Decals of Note



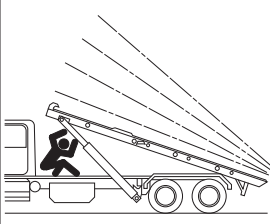
**WARNING**

**CRUSHING HAZARD**

Moving parts can crush and cut. Keep hands and arms clear.

25627

**WARNING**



**BEFORE WORKING AROUND A RAISED HOIST, THE HOIST MUST BE SUPPORTED BY THE HOIST PROP.**

(SEE HOIST PROP OPERATING INSTRUCTIONS)

FAILURE TO DO SO COULD RESULT IN SERIOUS INJURY OR DEATH. IF THE HOIST PROPS CANNOT BE USED, CONSULT THE MAINTENANCE SECTION OF THE OPERATION MANUAL FOR THE PROPER PRECAUTIONS.

45553

**DANGER**


**STAND CLEAR**

**WHEN THIS UNIT IS IN OPERATION!**

FAILURE TO DO SO COULD RESULT IN SERIOUS PERSONAL INJURY.

45557

**WARNING**



**DO NOT ATTEMPT TO LOAD A CONTAINER UNLESS THE HOIST AND CONTAINER ARE CORRECTLY ALIGNED.**

KEEP THE CONTAINER RAILS SAFELY ENGAGED WITH THE HOIST RAILS AND ROLLERS.

FAILURE TO DO SO COULD CAUSE THE CONTAINER TO SLIDE OFF THE SIDE OF THE HOIST OR JAM ON THE RAILS.

45692

**CAUTION**

**DO NOT ATTEMPT TO OPERATE THIS EQUIPMENT WITHOUT PROPER TRAINING.**

PERSONAL INJURY AND EQUIPMENT DAMAGE CAN OCCUR IF THIS EQUIPMENT IS USED IMPROPERLY. READ AND UNDERSTAND THE OPERATION MANUAL.

45693

**WARNING**



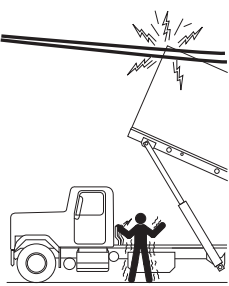
**DO NOT LOAD, UNLOAD OR DUMP CONTAINER ON UNEVEN GROUND.**

A LOADED CONTAINER CREATES A TOP HEAVY LOAD. USE CAUTION WHEN DRIVING ON UNEVEN GROUND AND TURNING CORNERS.

SERIOUS PERSONAL INJURY AND EQUIPMENT DAMAGE COULD RESULT.

45695

**DANGER**



**BE AWARE OF POWER LINES AND OVERHEAD OBSTRUCTIONS.**

CONTACT BY THE HOIST OR CONTAINER COULD CAUSE SERIOUS INJURY OR DEATH TO THE OPERATOR AND BYSTANDERS.

45696

**CAUTION**

**DO NOT EXCEED 1600 ENGINE RPM WHEN OPERATING POWER TAKE OFF!**

45697

**WARNING**



**RAISE HOIST ABOVE THE TOP OF THE TRUCK CAB BEFORE LOADING OR UNLOADING A CONTAINER, UNLESS A CAB GUARD IS INSTALLED.**


CABLE FAILURE COULD RESULT IN SERIOUS PERSONAL INJURY AND EQUIPMENT DAMAGE.

45698

**WARNING**

Escaping fluid under pressure can penetrate the skin causing serious injury or death. Relieve pressure before disconnecting hydraulic lines, tighten all connections before applying pressure, and inspect all lines before each use. See "Safety" section in operation manual for additional information.

If an accident occurs, see a doctor immediately. Any fluid injected into the skin must be surgically removed within a few hours or gangrene may result.



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# Chapter 6 - Installation

## General Install Guidelines

### Cable Hoist Mounting and Assembly

Study names and locations of the parts and familiarize yourself with the Cable Hoist before starting the assembly. Reading the step-by-step instructions that follow will be helpful.

### Safety

Read all of the safety notations in the assembly instructions for your protection. Accidents can be prevented by recognizing the cause of an accident before it can happen.

### Assembly

Select an area for assembly that will be large enough to accommodate the completed unit. The surface of the work area should be as level as possible. Use the proper hand tools to ensure proper bolt tightness. Refer to the chart below for the recommended torque values for different sizes of bolts.

### Recommended Torque Values in Foot Pounds

For SAE GRADE 2 and GRADE 5 coarse thread cap screws and bolts shown are suggested maximum for fasteners, carrying only the residue oil of the manufacturer.

### Proper Bolt Use

Do not use these values if a different torque value or tightening procedure is given for a specific application. Torque values listed are for general use only. Check tightness of fasteners periodically.

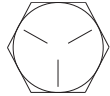
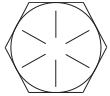
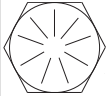
Shear bolts are designed to fail under pre-determined loads. Always replace shear bolts with identical grade.

Fasteners should be replaced with the same or higher grade. If higher grade fas-

teners are used, these should only be tightened to the strength of the original.

Tighten plastic insert or crimped steel-type lock nuts to approximately 110 percent of the dry torque values shown in the chart below, applied to the nut, not to the bolt head. Tighten toothed or serrated-type lock nuts to the full torque value.

*Note: "Lubricated" means coated with a lubricant such as engine oil, or fasteners with phosphate and oil coatings. "Dry" means plain or zinc plated without lubrication. Tighten lubricated bolts to approximately 80% of dry bolts.*

		Grade 5		Grade 8		Grade 9
						
Size (DIA-TPI)	Bolt DIA (Inches)	Plain (Ft-Lb)	Plated (Ft-Lb)	Plain (Ft-Lb)	Plated (Ft-Lb)	Plated (Ft-Lb)
5/16-18	0.3125	17	13	25	18	22
3/8-16	0.3750	31	23	44	33	39
7/16-14	0.4375	49	37	70	52	63
1/2-13	0.5000	75	57	105	80	96
9/16-12	0.5625	110	82	155	115	139
5/8-11	0.6250	150	115	220	160	192
3/4-10	0.7500	265	200	375	280	340
7/8-9	0.8750	395	295	605	455	549
1-8	1.000	590	445	910	680	823
1 1/8-7	1.1250	795	595	1290	965	1167
1 1/4-7	1.2500	1120	840	1815	1360	1646
1 3/8-6	1.3750	1470	1100	2380	1780	2158
1 1/2-6	1.500	1950	1460	3160	2370	2865

### Model Number

Know the model number of the Stellar Cable Hoist being mounted. Use this model number whenever referring to the assembly or parts listing pages. The number is stamped on the name plate which is located on the front frame member.

Right and Left sides can be established by standing behind the truck frame and looking towards the front, or the direction of travel.

## Truck Chassis Specifications

See the illustrations on pages 15-17 at the front of this manual for specific details.

Minimum Axle Rating:	Front: 18,000 lbs.
	Rear: 44,000 lbs. with walking beam type suspension
Frame Strength:	Total RBM per frame rail = 2,400,000 in-lbs. (both channels)
	Section Modulus (minimum) = 32 in <sup>3</sup> for 36,000 PSI steel
	Section Modulus (minimum) = 24 in <sup>3</sup> for 55,000 PSI steel
Important: If your truck chassis height exceeds the 45" dimension, or tire dimension is greater than 102", the O.R.X. or I.O.X. hoist should be considered.	

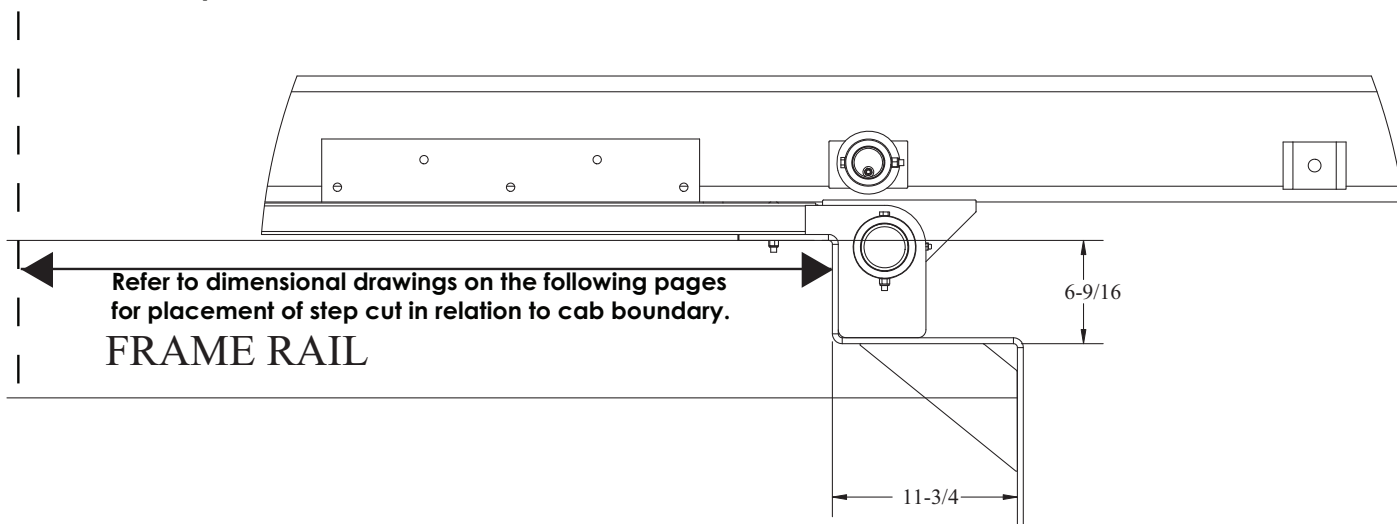
1. Thoroughly check the truck requirements to ensure proper clearance and frame strength before mounting the hoist. Note: The rear cab boundary is the rearmost unremovable protrusion behind the cab and above the chassis frame.
2. The CT, from the rear of the cab boundary to the center of the walking beam suspension, is shown in the table below:

<i>Relocate the rear axles as required. Stellar Autotarper must have 10" to 12" unobstructed space behind cab for installation.</i>	Model	Cab to Trunnion	
		w/o Tarper	With Tarper
	SI60-174	174 Inches	180 Inches
	SI60-182	182 Inches	188 Inches
	SI60-194	194 Inches	200 Inches

## Step 1: Truck Frame Cut-Off

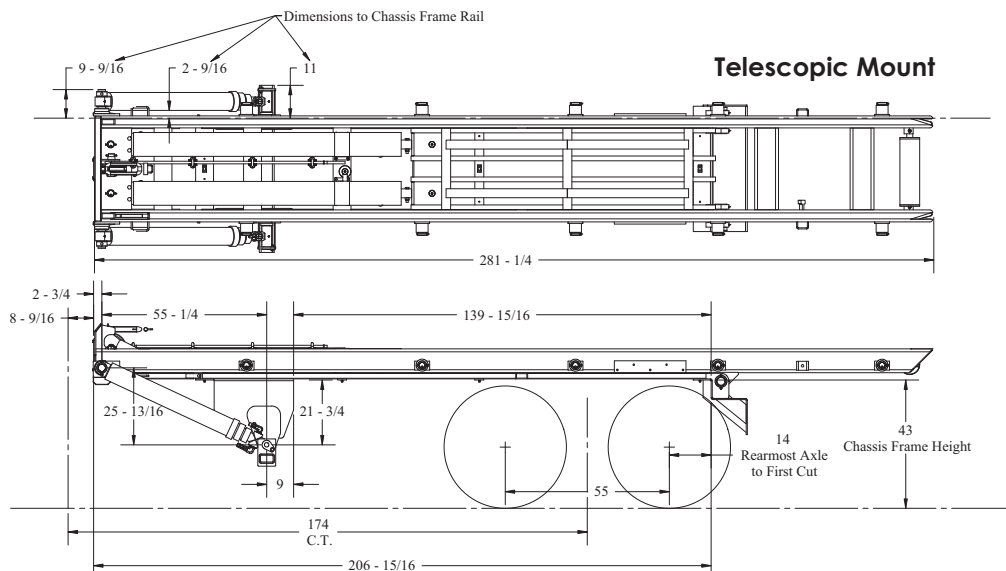
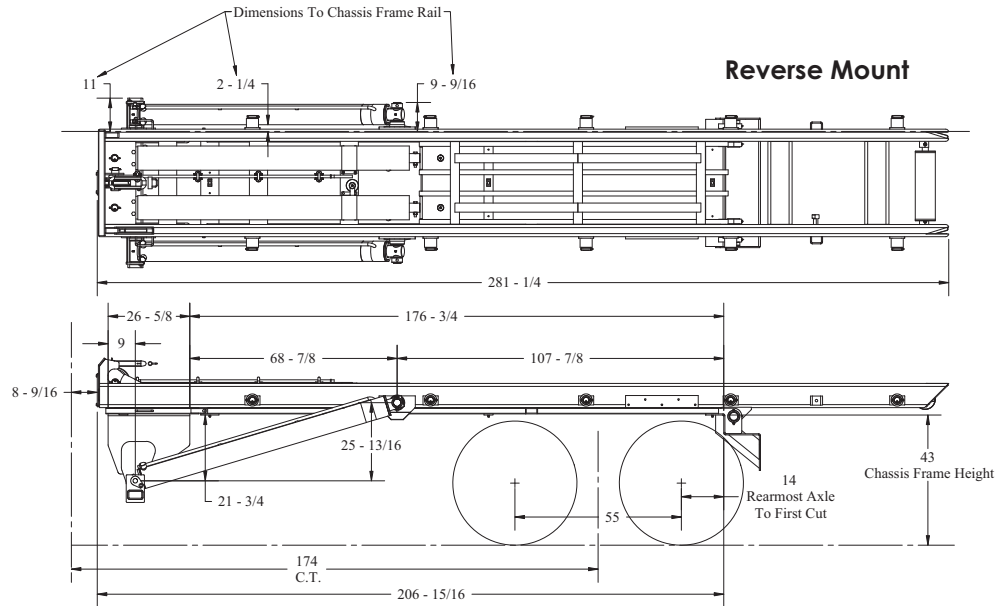
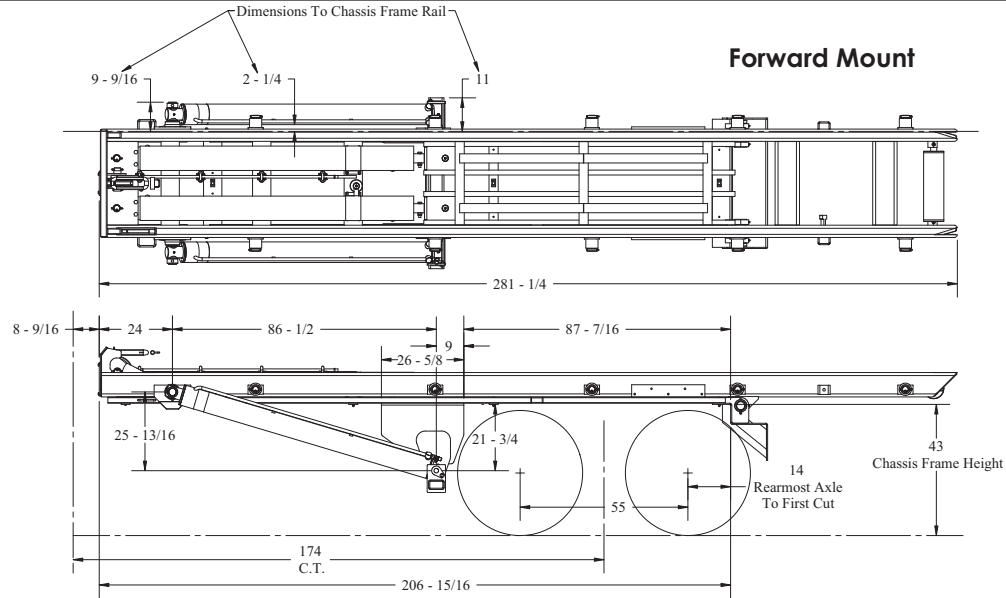
Measure and mark the truck frame as shown below. Use the dimensional drawings on the following pages to determine where to mark the first vertical cut on the frame rail. Measure assembled hoist to be sure that adequate room is available behind truck cab; between bumper and tires; and between fender and tires. This verifies that a measurement error has not been made either in the CT (Cab to Trunnion) or cut-off dimension. After double checking your measurements, step-cut the truck frame as shown below.

### Cab Boundary

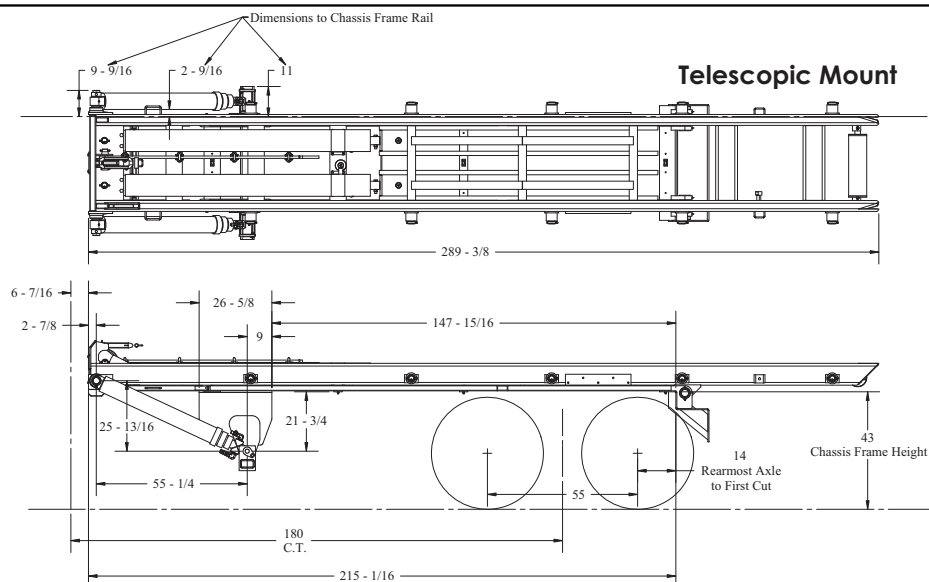
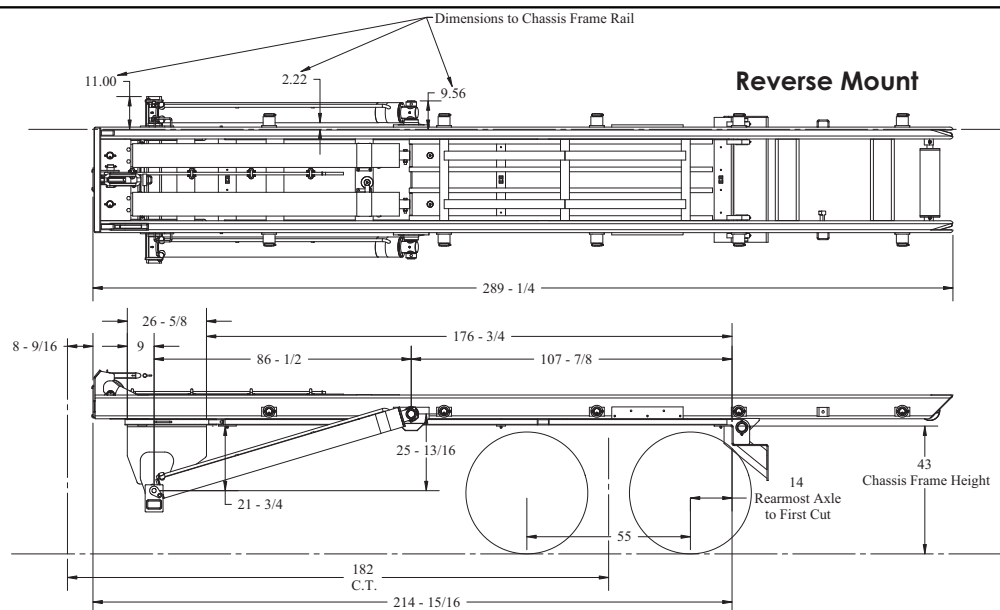
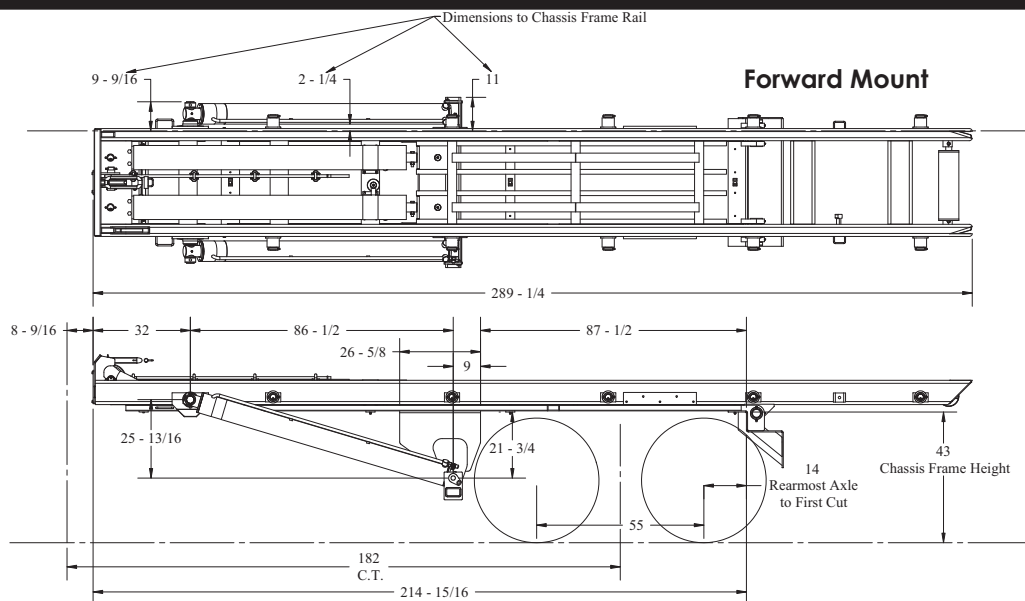




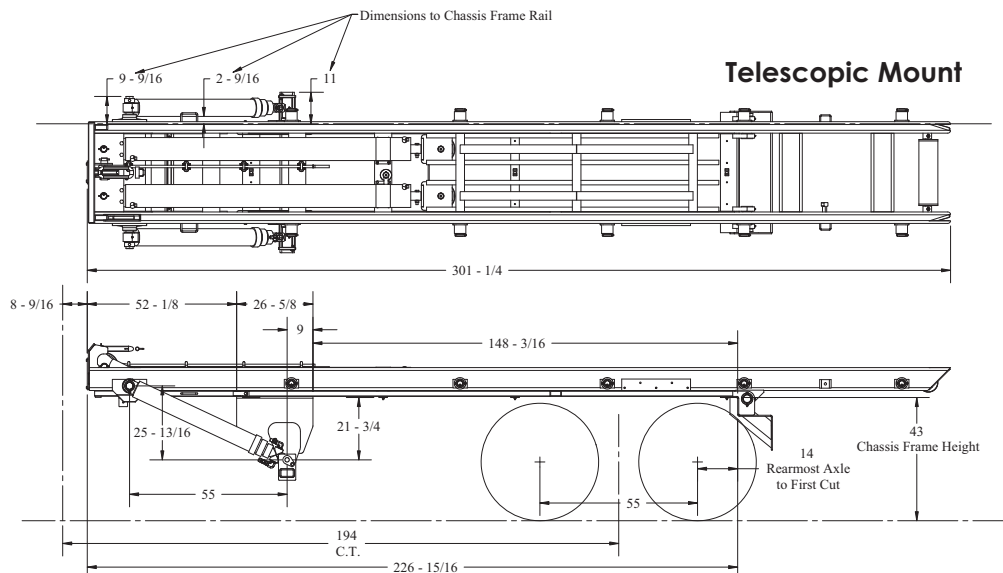
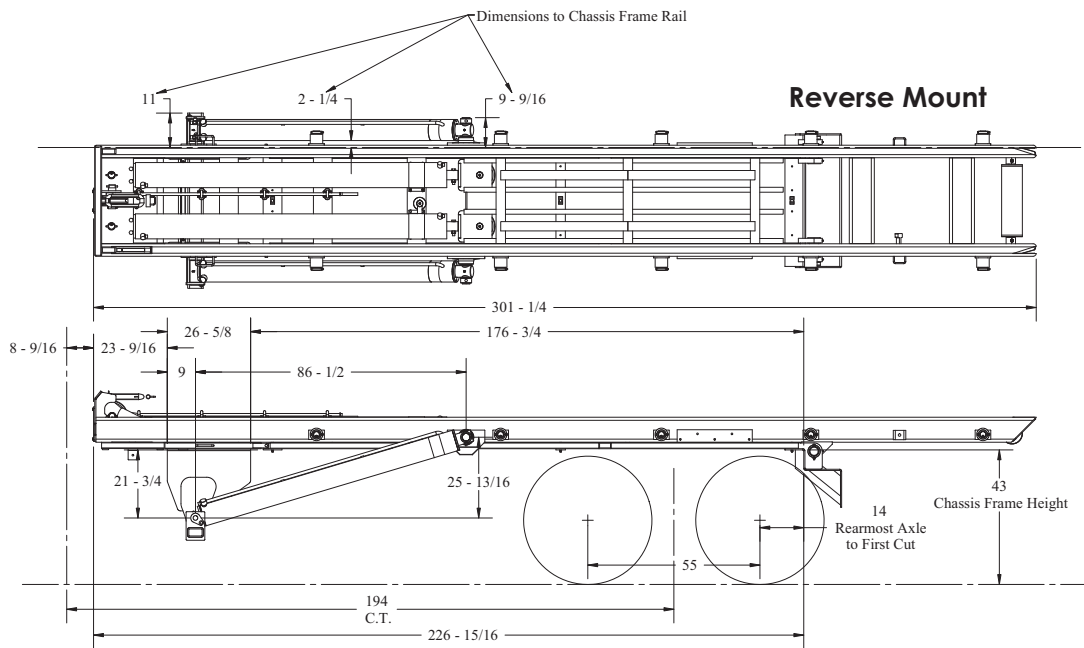
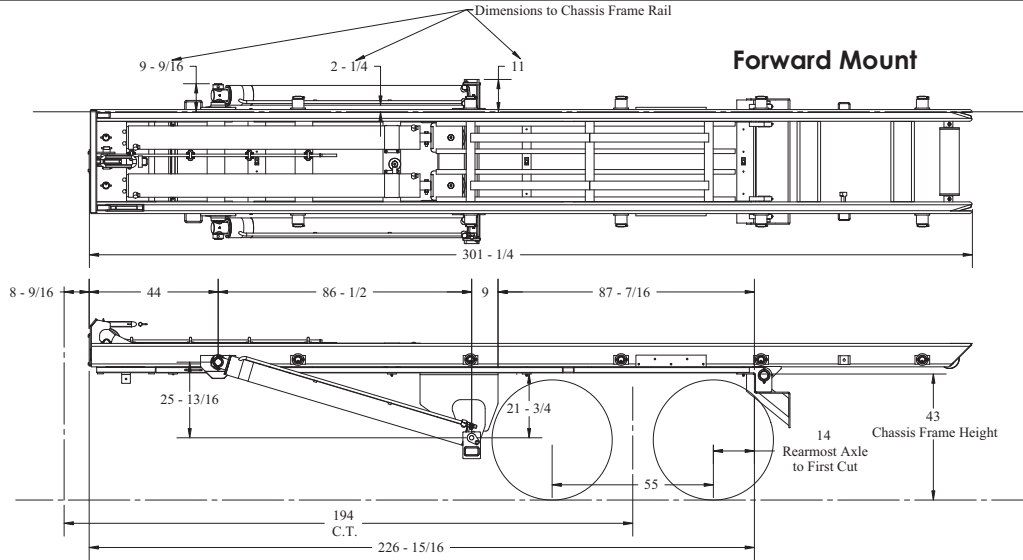
# Dimensions: 174 Models



# Dimensions: 182 Models



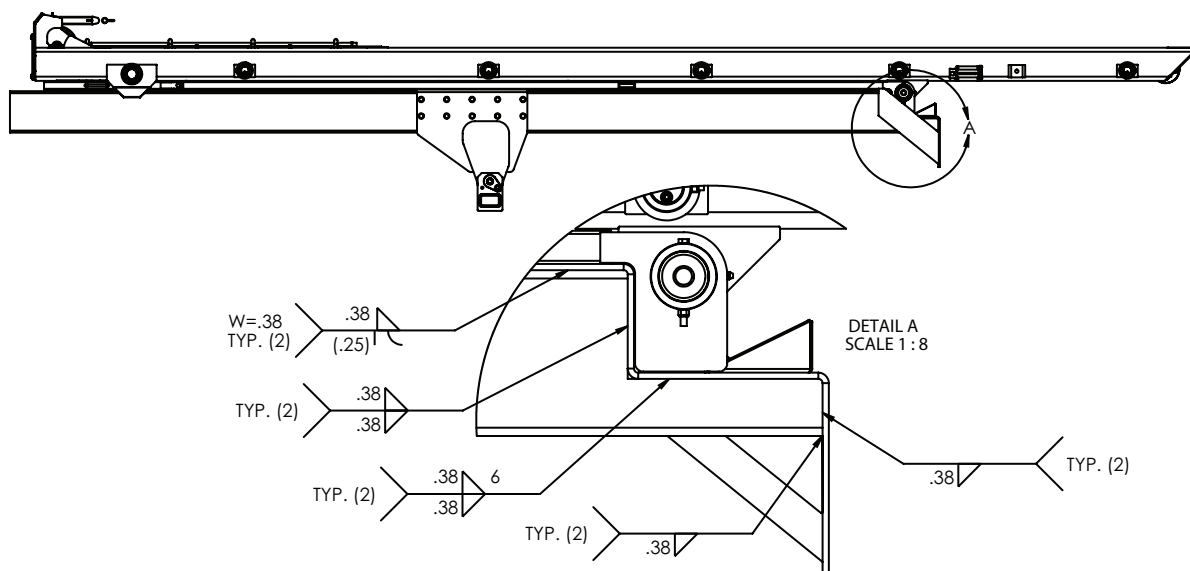
# Dimensions: 194 Models



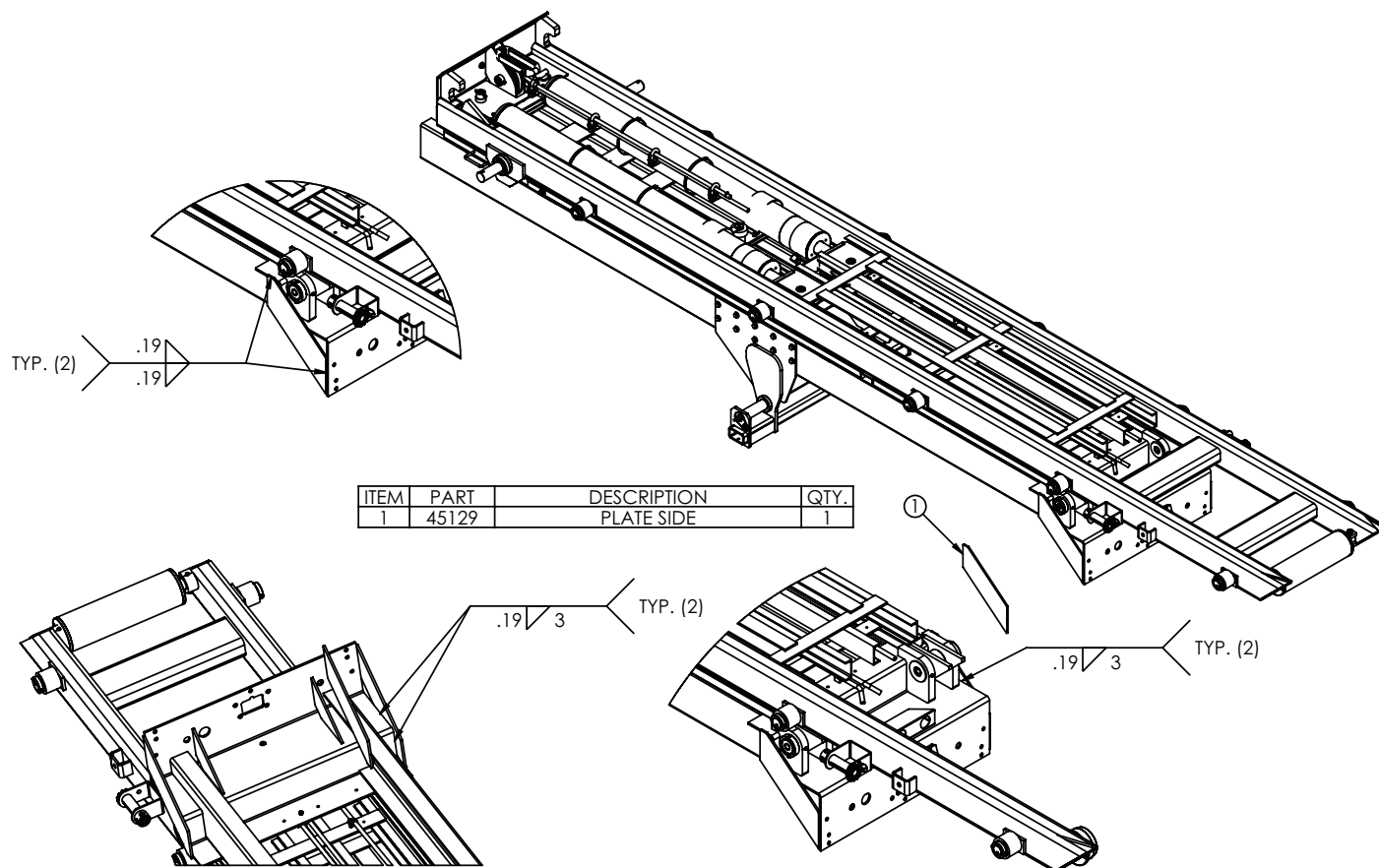
## Step 2: Mount Hoist

*Note: Refer to the illustration on the previous pages.*

- A. Position the hoist sub-frame onto truck frame, aligning and squaring up with truck frame, clamp and then heavily tack in place.
- B. Continue to fully weld the hoist rear apron to the truck frame. Weld 100%  $\frac{3}{8}$ " weld both sides of truck frame to hoist sub-frame:

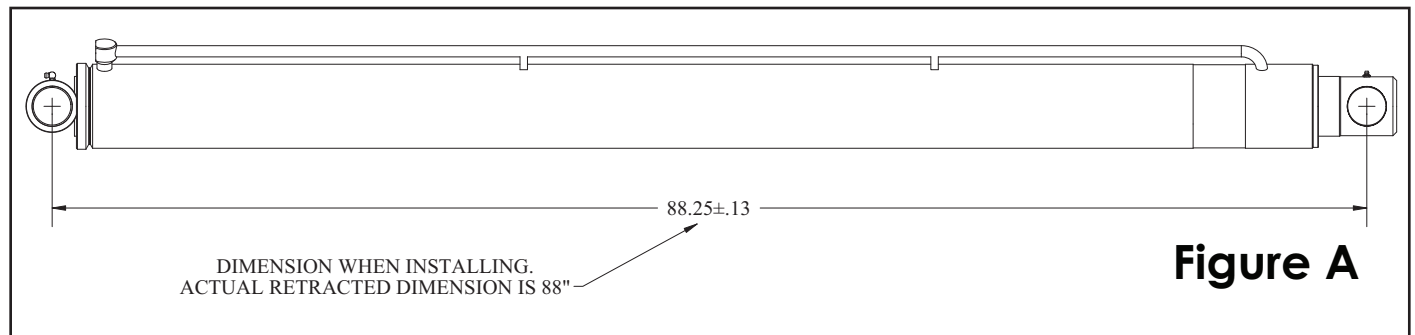


- C. Weld the gussets onto the hoist apron:

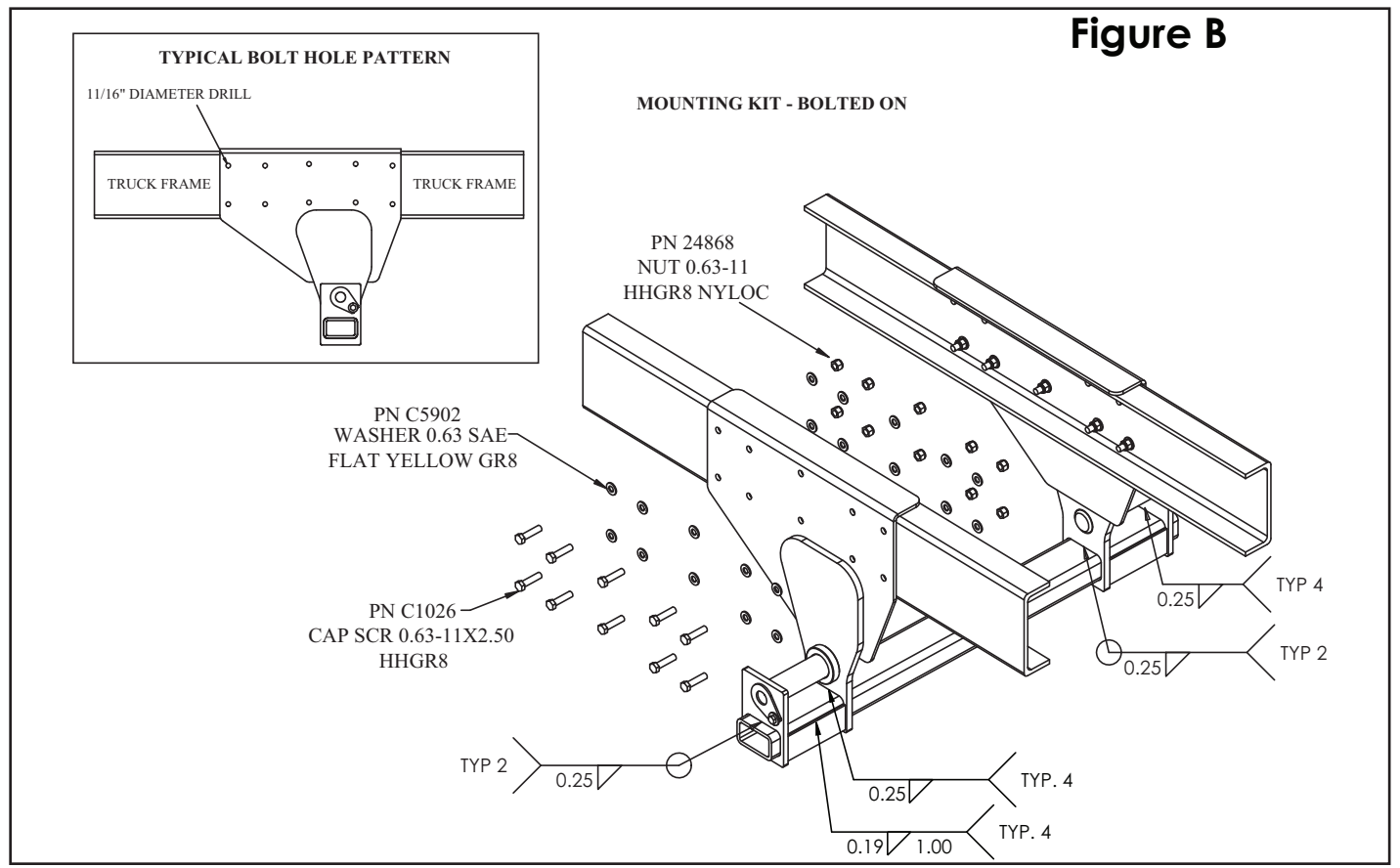


## Step 3: Mount Lift Cylinders

- A. Check frame for bolts, rivets, etc. and clearance required (Refer to the previous pages) before placing the Lift Cylinder Weldment into place under the hoist sub-frame.
- B. Install the cylinder weldment cross tube.
- C. Install the Lift Cylinders and extend each cylinder rod 1/4". Check the shaft to cylinder dimension on both sides. Standard Lift Cylinders dimension should be 88 1/4" plus or minus 1/8". Telescopic Cylinder dimension should be 61-1/4" plus or minus 1/8". Be sure to install proper cylinder shaft hardware so that Lift Cylinders do not interfere with truck frame or bolts. The lift cylinders will precisely locate the lift cylinder weldments.



- D. Clamp the Lift Cylinder Weldment in place and drill ten (10) 11/16" diameter holes as per Figure B.



## Mount Lift Cylinders Continued...

E. Bolt the Lift Cylinder Weldment to the truck frame using the supplied hardware.

F. (FORWARD MOUNT ONLY) Weld the Lift Cylinder Weldment to the sub-frame as shown in Figure C. Remove any gap between the weldment and sub-frame before welding.

G. Make sure the cylinder cross tube is centered. Weld the cylinder cross tube. (See Figure B)

NOTE: Do not weld to truck frame. Welding anywhere on the truck frame in front of the rear spring shackle will likely void the truck manufacturers warranty.

H. Install the outside washers, collars, etc. to secure Lift Cylinders at rod and butt end. Refer to page 68 for mounting kit assembly drawing.

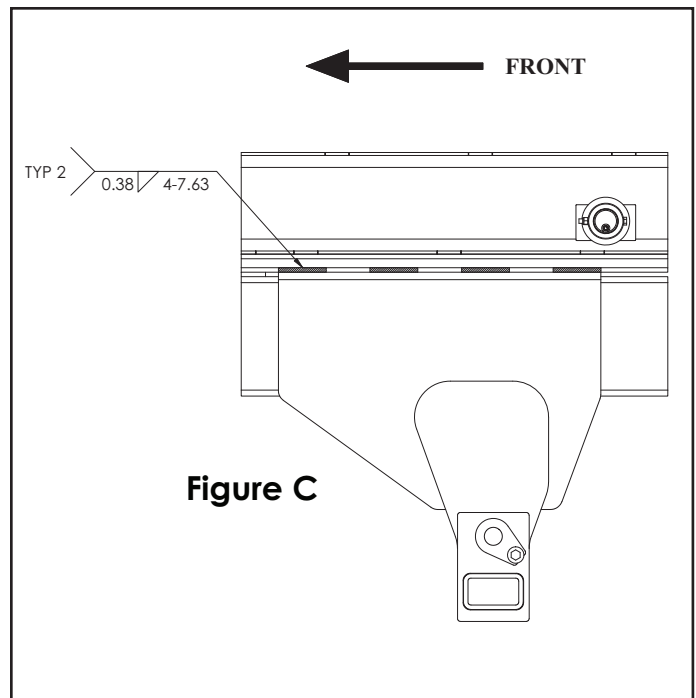


Figure C

## Step 4: Hydraulic Reservoir Installation

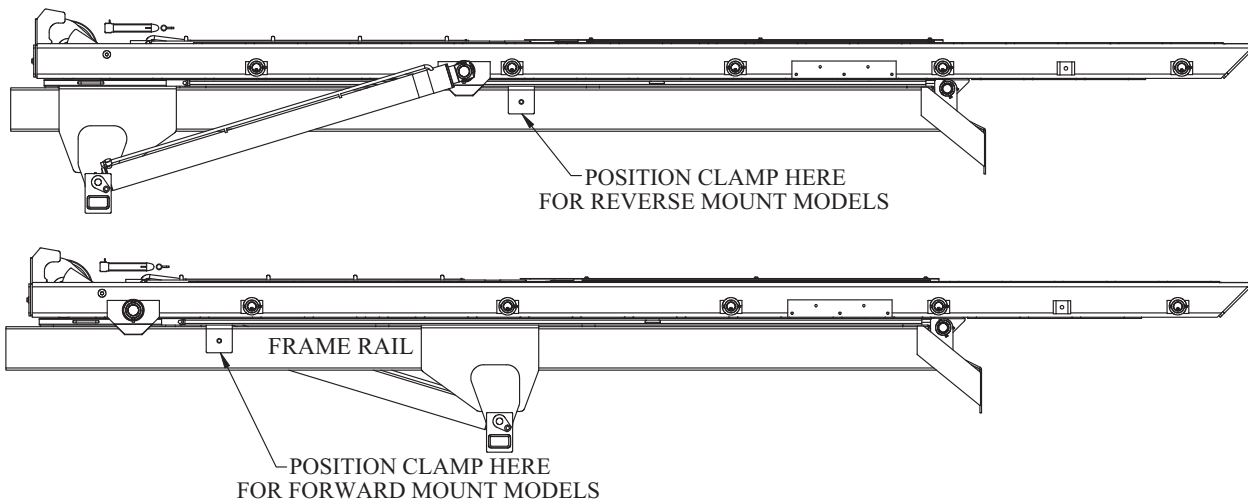
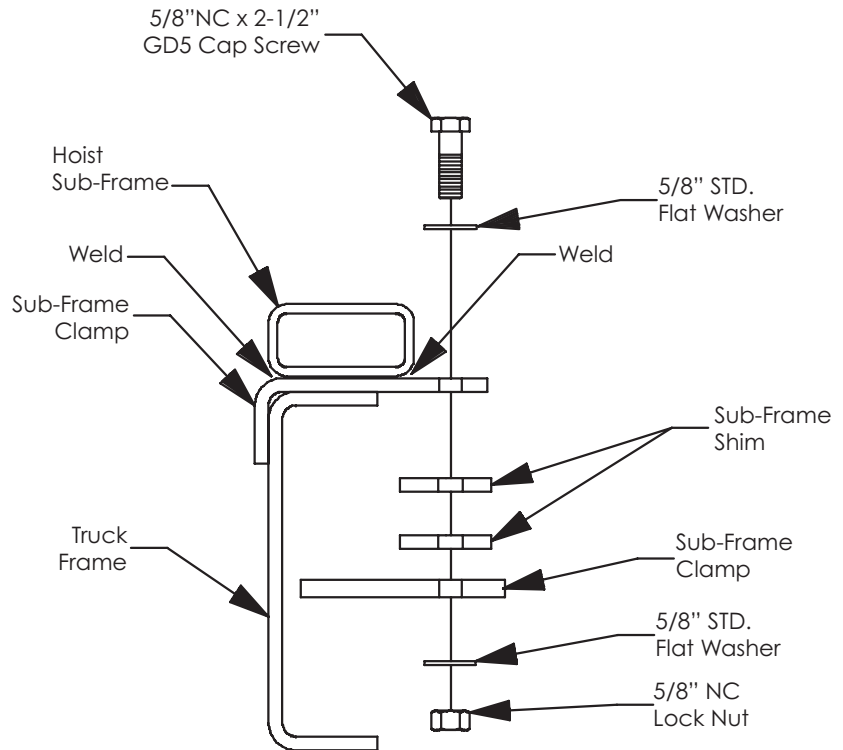
Note: See Chassis Mounted Parts and Reservoir Tank Assembly Drawings for details

1. Assemble valve, hoses, etc. to tank before mounting tank. Label hoses per illustration.
2. Position and clamp the Tank Mounting Bracket approximately 22" behind the rear of the cab boundary per illustration. Note: It may be necessary to relocate air tanks, fuel tanks, battery cases or any other accessories mounted in the area. Check both sides for clearance on hydraulic tank and toolbox mounting.
3. Drill six (6) 1/2" diameter holes as shown in illustration. Use six (6) 1/2 NC x 2-1/2" GD8 Cap Screws torqued to 80 ft. lbs. and six (6) 1/2 NC GD8 locknuts.
4. Install the Close Nipple, Ball Valve, and Hose Barb onto the Tank Assembly.
5. Remove the Tank Assembly and drill 3/8" diameter holes on the marks.
6. Re-Install the tank and tighten the set screws into the drilled holes. Tighten the jam nuts.
7. Note: Petro-Canada Hydrex 32 (ISO 32) hydraulic oil is recommended.

## Step 5: Sub-Frame Front Clamp Installation

Before proceeding any further, it is necessary to raise the hoist and set it down on the hoist props.

1. Position the L-shaped clamp between the sub-frame and truck frame as shown below.
2. Assemble the lower clamp and two (2) shims with a 5/8"NC x 2-1/2" GD. 5 Cap Screw, two (2) Flat Washers and Self Locking Nuts. Trim the lower clamp as required to clear the frame channel. Note: Stair-step the shims so fillet welds can be applied.
3. Tighten the bolts to the specified torque and weld the plates and shims in position.
4. **Do not weld to truck frame.**



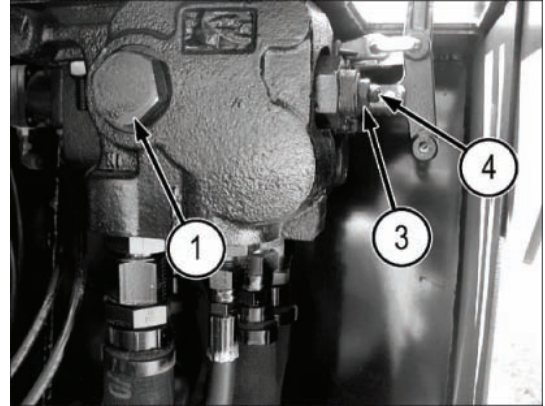
## Step 6: Hydraulic Plumbing Installation

Clean all hydraulic components and keep all hoses, tubes, valves, and fittings capped until they are installed. Use pipe sealant on pipe thread joints only. (Do not use teflon tape).

1. Install fittings and hoses as shown in parts illustration.
2. Note single stage Lift Cylinder plumbing and Telescopic Cylinder plumbing are different. See hydraulics schematic/drawing for details.

## Step 7: Hydraulic Relief Pressure Setting

1. Locate the pressure gauge facing front of truck.
2. Loosen Jam Nut.
3. Using allen wrench, adjust to proper pressure. See **Chapter 4: Specifications** for pressure specifications.
4. Tighten Jam Nut, holding adjustment screw in position.
5. Test unit for proper operation, readjust to correct pressure if needed.
6. Retest unit checking leaks and proper operation.



## Step 8: Cable Control Installation

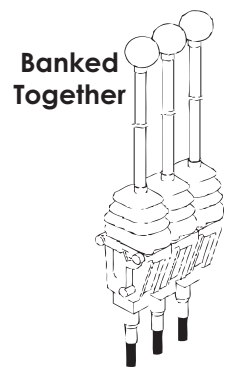
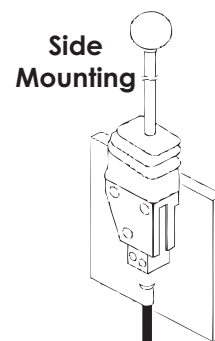
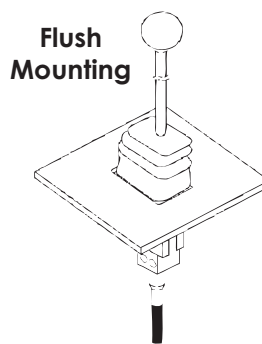
The standard cable controls supplied with Stellar equipment are high-quality assembly which seal out moisture, are corrosion protected, and engineered to minimize backlash (lost motion). After the hoist and hydraulic tank are mounted to the truck chassis, the remote cable controls may be installed.

### Cable Control Mounting:

1. On the hydraulic control valve, remove the screws holding the spool cover plate. Position the handle assembly on the valve face and install the screws provided with the handle kit. Install the clevis pin and cotter pin.
2. Mount the valve to the underside of the mounting plate located on the top of the hydraulic tank assembly with the handles sticking up through the rectangular cutout.
3. Position the control cable bulkhead plate on the top of the hydraulic tank assembly. Install the control cable bulkhead plate with 1/2" cap screws and nuts, or weld. If necessary, temporarily assemble the threaded cable end to the bulkhead plate for proper positioning with the valve handles.
4. Mount the cable controllers to the control mount supplied. Other mounting options are shown in the following illustration (parts not supplied).

#### Important:

- a. A good cable path is essential for a properly operating system. Keep bends in the cable path to a minimum and as generous as possible. Under no circumstances should any bend be tighter than an 8" radius.
- b. Protect the cable from heat above 225°F and avoid hot areas such as the exhaust system, etc.
- c. Protect the cable from physical damage such as pinching or crushing and do not use cable supports which may crush or deform the cable.
- d. Allow room for flexing where the cable is attached to moving parts of the equipment so that the cable is neither kinked nor stretched.



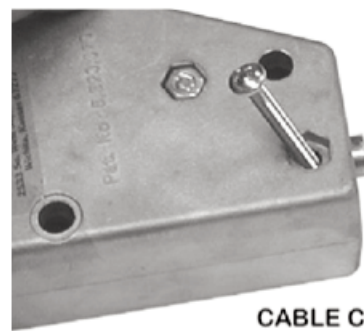


## Cable Control Installation Continued...

5. Choose a mounting location which is convenient and comfortable for the operator and provides adequate clearance for the control lever movement. Check the underside of the cab for reinforcement members, air lines, wiring harnesses, and linkages before cutting into the floor. Be sure the location chosen allows the cable to be led easily away from the control. Reversing control direction usually is not necessary. In most cases, the direction of the lever movement for a given valve function can be changed by switching the hydraulic lines at the valve. If this is not an option, control operation can be changed simply by turning the cable controller 180°.
6. Cut a hole for the control cables to pass through.
7. If using the control mount provided, mark and drill four (4) 3/8" diameter holes for the 3/8" x 1-1/2" cap screws provided.

### Cable Connections:

1. Remove the screw from the cable controller where the cable end will install. Do not remove the other screws passing through the cable control housing.



CABLE CONTROLLER



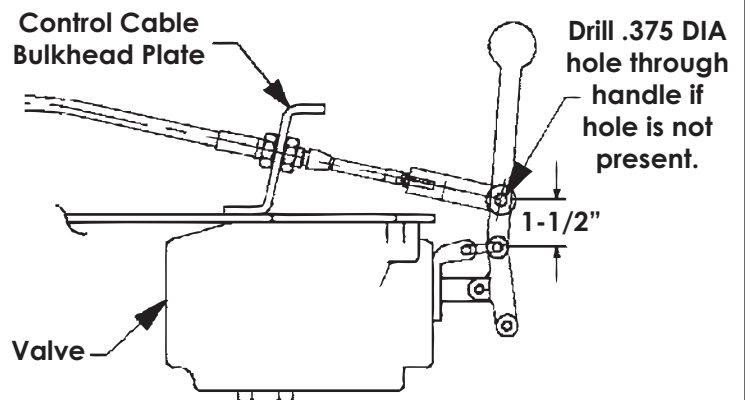
CONTROL HEAD END OF CABLE

2. Screw the hex threaded cable end into the cable controller end.
3. Install the control head end of the cable into the cable controller.



THREADED PORTION OF CABLE ASSEMBLY FOR BULKHEAD PLATE

- Reinstall the cable controller screw passing through the groove in the end of the cable housing.
4. Check the control for free movement and correct valve control.
  5. To connect the cable to the valve handle, start by removing the mounting nut from the cable assembly. (Large nut in the photo above).
  6. Install the threaded portion of the cable assembly through the bulkhead weldment and replace the mounting nut.
  7. Install the clevis provided to the cable end. The cable end should be parallel to the bulkhead weldment.
  8. Located the clevis on the control valve handle. If a hole is not provided in the control valve handle for the clevis, drill a .375" diameter hole through the valve handle as illustrated. Install pin and keeper included with clevis.
  9. Do a final check of the controls for free movement and correct valve control.



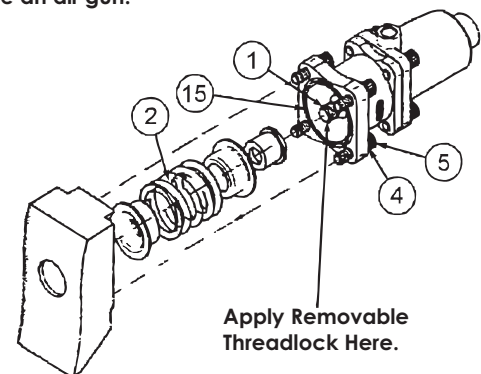
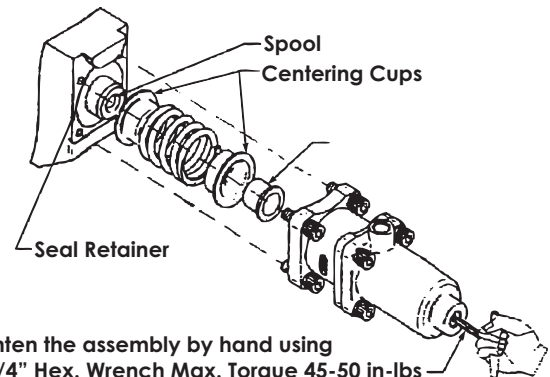
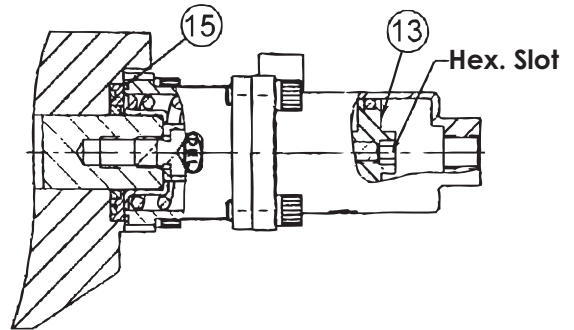
## Step 9: Pneumatic Control Installation

The pneumatic controller provided with the Stellar Cable Hoist are dual three-way regulating valves. Output of the controllers is proportional to the control lever position and is balanced against the force of an internal spring.

### Pneumatic Actuator Installation:

The pneumatic actuator has been partially assembled and pre-lubricated for ease of installation. The actuator does not have to be disassembled for installation.

1. Remove the valve from the hydraulic tank if previously installed.
2. Find a suitable area free of dust and dirt to attach the pneumatic actuators.
3. Set the hydraulic valve on its mounting base.
4. Determine which spools are to be pneumatically controlled.
5. From the valve assembly:
  - a. Remove and discard the 1/4" retainer screws and the valve spring cover.
  - b. Retain the handle end of the spool. Using a 5/16" hex Allen wrench, remove and discard the 3/8" shoulder bolt and washer from the end of the valve spool exposed by the removal of the valve spring cover. Note: It may be necessary to give the hex Allen wrench a sharp rap to break the socket head screw loose.
  - c. Remove and discard the original centering spring. Keep the two original centering cups and the sleeve for reuse.
  - d. Ensure the original seal retainer on the valve spool is properly seated.
6. Assemble the new centering spring (item 2) supplied with the pneumatic actuator using the original centering cups and sleeve as shown.
7. Apply a small bead of removable thread lock to the threads of the spool adapter (item 2). Holding the spool on the opposing end, hand tighten (torque 45-50 in-lbs) in the centering spring assembly by inserting 1/4" hex wrench through the rear fitting port into the end of the piston (Item 13). Do not use an air gun. Make certain that the spring assembly does not bind on the centering cups.
8. Make certain the o-ring (item 15) is in place. Secure the pneumatic actuator assembly to the valve body using the four socket head screws and lock washers (Items 4 & 5). Test for proper alignment by turning the valve spool. The spool should rotate freely.
9. Assemble the valve to the mounting plate on the hydraulic tank. Test spool for free movement.



## Pneumatic Control Installation Continued...

### Pre-Assembled Pneumatic Control Tower Installation

1. Determine a suitable location which is in a comfortable location for the driver and not in the way of the transmission lever.
2. Position the lower bolt holes so that the bolts will miss any cable, wires or structural members in or under the cab floor.
3. Mark and drill the four (4) 3/8" diameter holes for the 3/8" x 1-1/2" cap screws supplied for the tower.
4. Determine a location in the area between the mounting holes to run the air lines.
5. Drill a 2" to 3" diameter hole through the floor of the truck. Remove all burrs and sharp edges. Line the hole with the grommet material supplied.
6. Using the washers on the underside of the floor, attach the tower to the floor with the 3/8" screws and lock nuts.

After the control tower has been mounted, the air lines can be routed. The air line tubing is color coded as follows:

Blue	Winch/Cable In
Green	Winch/Cable Out
Orange	Hoist Raise/On
Yellow	Hoist Down/Off
Red	PTO
Black	Exhaust
Silver	Supply
Silver	Aux In
White	Aux Out

To remove an air line from a fitting, push the line in, hold the internal sleeve of the fitting, then pull the air line out.

1. Press the air lines through the hole lined with grommet material in the floor.
2. Route the exhaust air line outside of the truck cab.
3. Determine a suitable route for the air lines to the control valve. Avoid sharp bends, sharp edges, and heat sources.
4. Install supplied elbow fittings into pneumatic actuators on the valve bank.
5. Connect the air lines to the elbow fittings in the pneumatic actuators.
6. Bundle the air lines together and secure out of harms way.

A decal with an assortment of .94" diameter labels are provided with the owner's manual. These decal labels can be applied to the underside of the clear plastic caps to identify the function of each pneumatic control handle. After the decals have been applied, snap the clear covers into the handles.

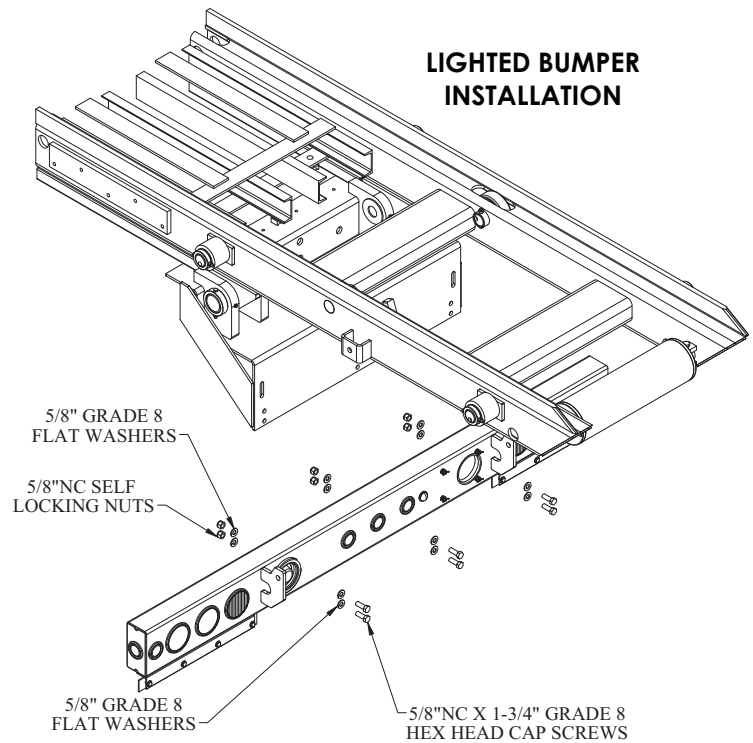
### Start-Up Procedure

1. Charge the air system of the truck. Check all lines for leakage.
2. Operate the controllers and check for correct hydraulic valve movement. Note: The controllers pressurize the port toward which the handle is moved. If the function is to be reversed, exchange the air lines at the controller or actuator.
3. After the correct connections have been made and the hoist has been completely installed, engage the PTO to check the operation of the hoist.

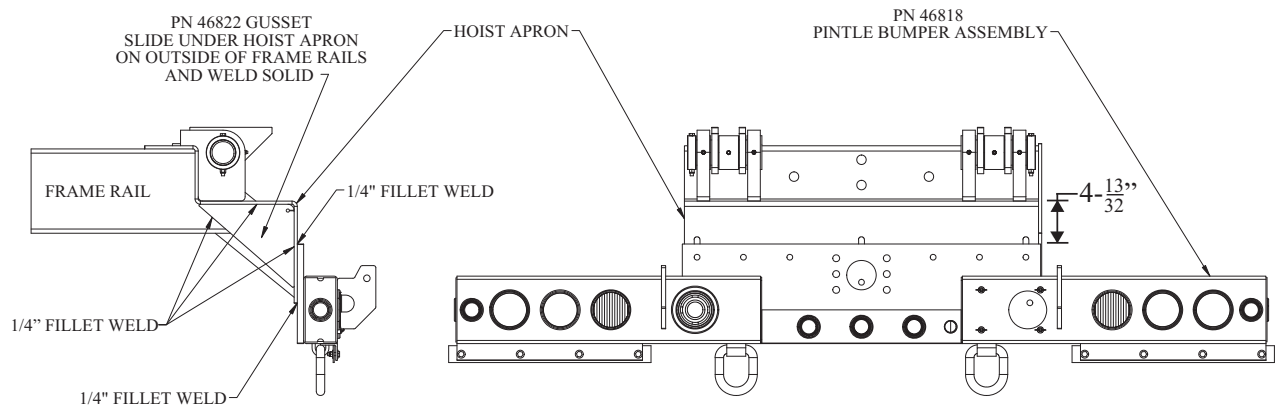
## Step 10: Bumper Installation

### Lighted Bumper Installation

1. Align the holes in the lighted bumper with the holes in the hoist sub-frame apron.
2. Install six (6) 5/8NC x 1-3/4" GD.8 Cap Screws, twelve (12) Flat Washers, and six (6) Hex Nuts. Torque to specifications.
3. Install wiring harness P/N 38056 through the access hole.
4. Install the bumper lights as shown on parts pages 59-60.
5. Connect the female end of wiring harness P/N 38056 to the male end of wiring harness P/N 40310 as shown on page 42.
6. Check all light functions. Important: The back-up alarm should sound when the back-up lights are on.



### PINTLE BUMPER INSTALLATION



### Pintle Bumper Installation

1. Position the bumper weldment over the hoist apron and center.
2. Make sure bumper is level and tack weld into position.
3. Match drill all fender and pintle mounting holes through the hoist apron.
4. Weld bumper to apron per weld call-out shown.
5. Position and weld the reinforcement gussets as shown.
6. Check all light functions. Important: The back-up alarm should sound when the back-up lights are on.

## Bumper Installation Continued...

### I.C.C. Bumper Installation

1. Connect the bumper weldment to the hoist with two (2) 3/4NC x 4-1/2" Cap Screws, Spacers, Flat Washers and Self-Locking Nuts. It may be necessary to use Flat Washers between the bumper uprights and the hoist frame.
2. Connect the lower links between the pivot on the lighted bumper and the ICC bumper. Use a 3/4NC x 2-1/2" GD.5 Cap Screw, Spacer, Flat Washer and Self Locking Nut to attach each link to the lighted bumper. Use a 3/4NC x 4-1/2" GD.5 Cap Screw, Spacer, Flat Washer, and Self Locking Nut to connect each link to the ICC bumper.
3. Torque nuts to specifications.
4. The ICC Bumper should fold up against or near the tail of the hoist as the unit is raised to the full-up position. If the ICC Bumper does not fold correctly, it will be necessary to add flat washers between the lighted bumper and the sub-frame apron. To tuck the ICC Bumper closer to the hoist frame, the flat washers must be installed on the upper lighted bumper mounting bolts. If the ICC contacts the hoist before the unit is completely raised, the flat washers should be installed on the lower lighted bumper mounting bolts.

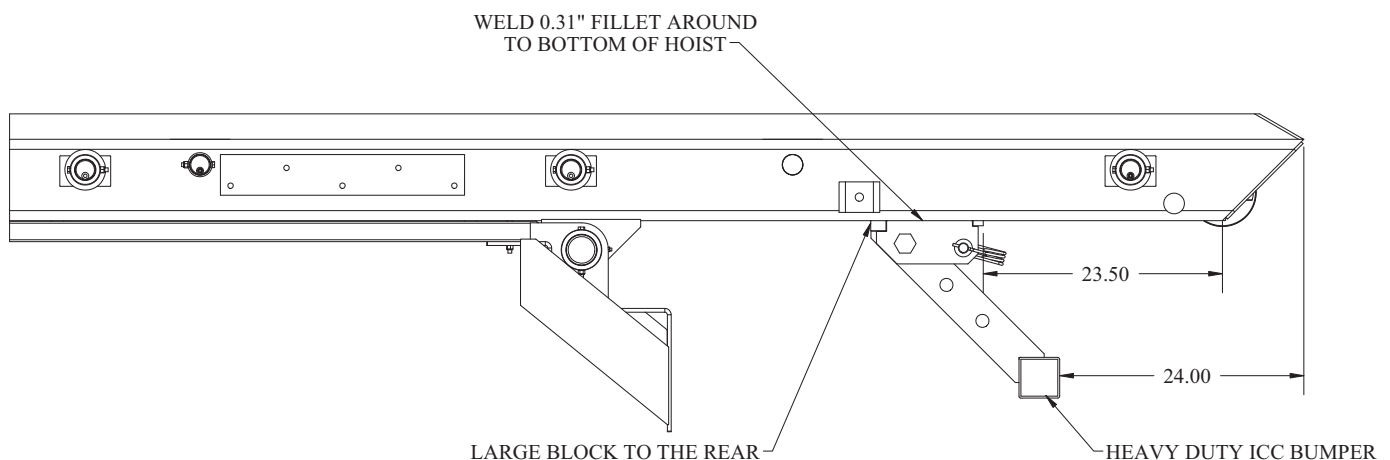
### ICC Bumper Installation (I.O.X.)

1. This ICC bumper is mounted in the same manner as the OR or IO ICC Bumper.

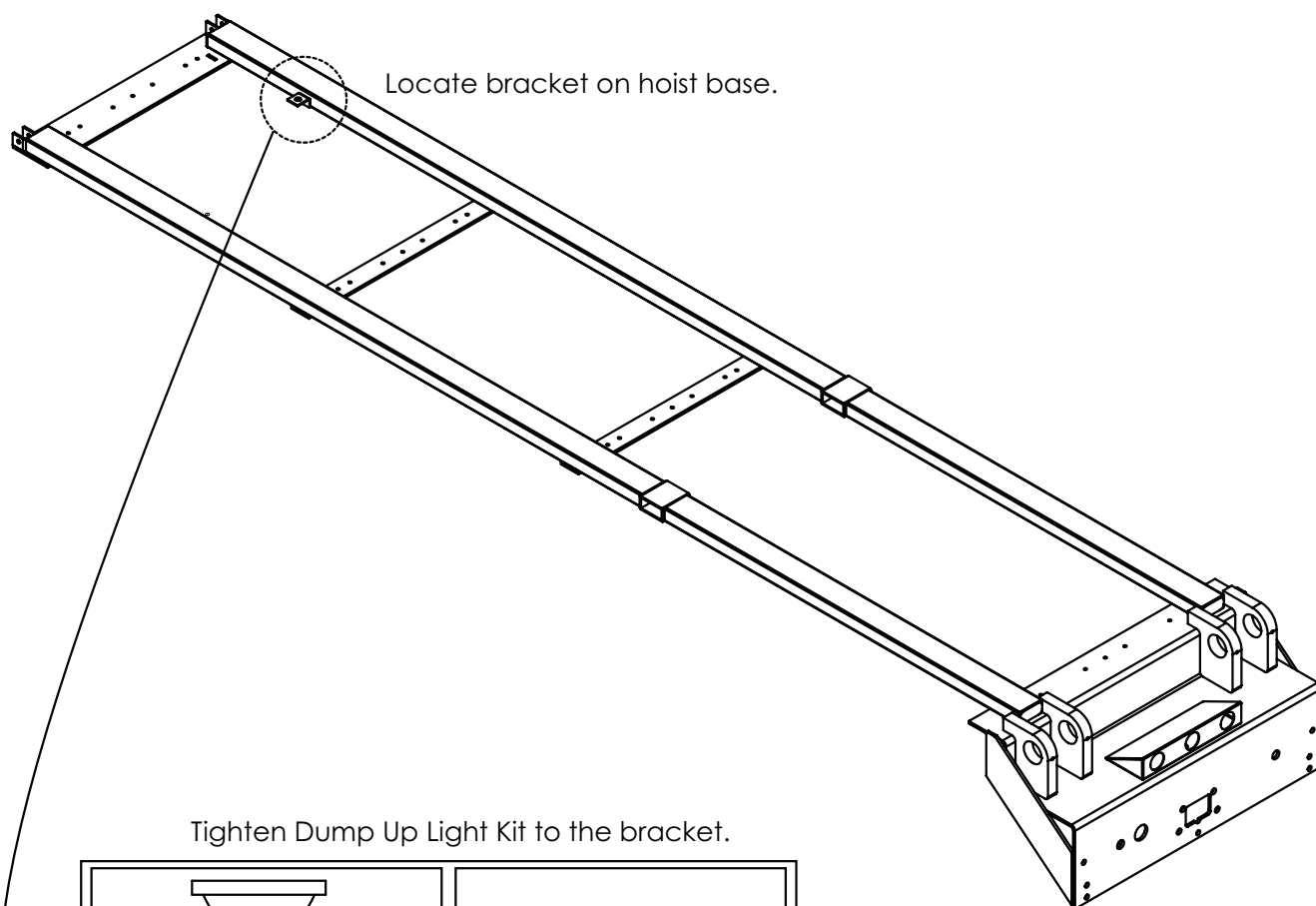
### Pintle ICC Bumper Installation (See Illustration on Next Page)

1. Modify PN 46818 Pintle Bumper by welding PN 51629 collars to ICC bumper brackets.
2. Match drill holes in ICC bumper brackets to holes in PN 51629 collars 1.06 DIA.
3. Drill one side of PN 45813 Flat Link to 1.06" DIA.
4. Bolt PN 45814 Standard ICC bumper to existing brackets on the sides of the hoist frame.
5. Swing up ICC Bumper and locate where PN 48159 Bushings will be welded. Weld bushing to the under side of hoist frame on both sides. Make sure cross-drilled holes in bushings are on the outside of the hoist frame.
6. Swing bumper down and weld PN 51628 Stop to the top of the ICC Pivot Tube. (See Illustration)
7. Lock ICC Bumper in the down position using PN 45311 Pin and PN 45216 Lock Pin.
8. Bumper must be pinned down except when pulling a pup trailer. Pin bumper up when pup trailer is attached to eliminate any possible damage to bumper or trailer tongue.

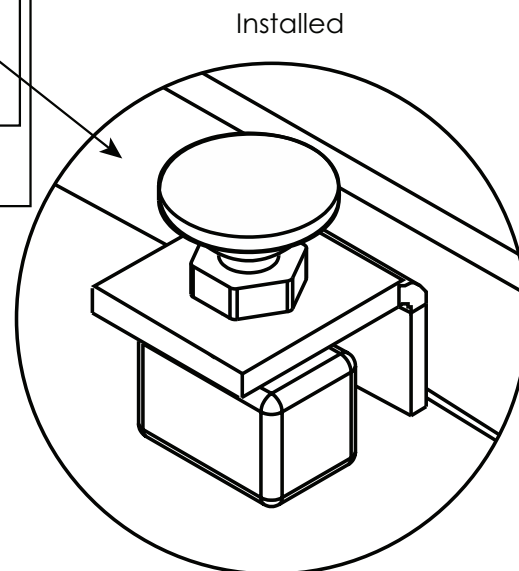
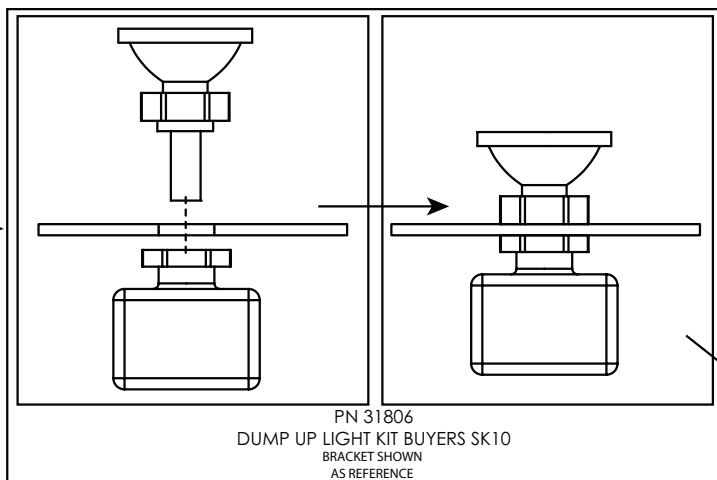
## Heavy Duty ICC Bumper Installation



## Step 11: Hoist Up Light Installation



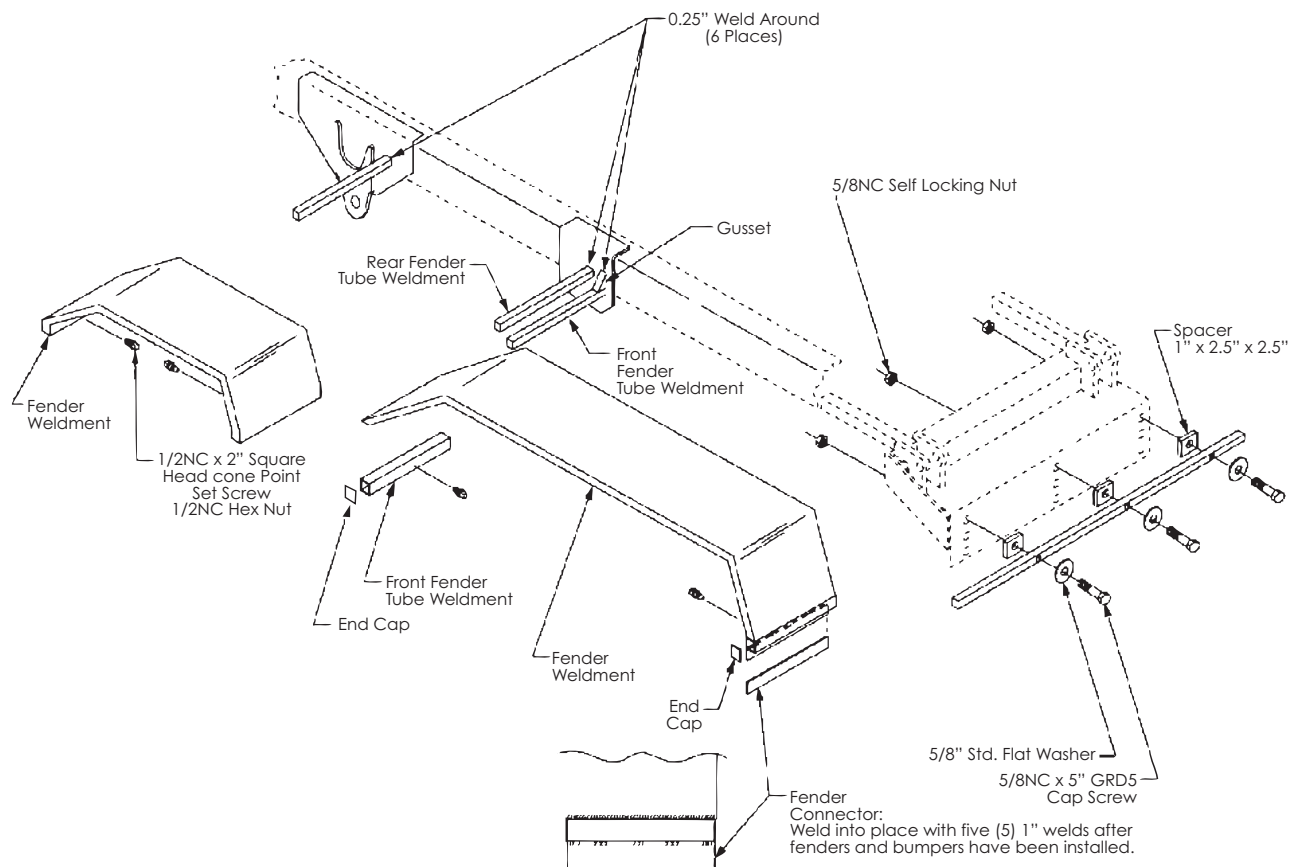
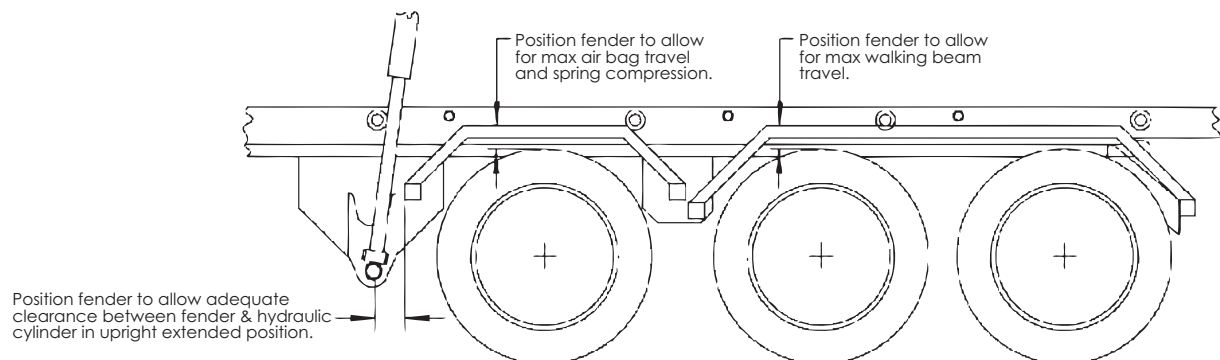
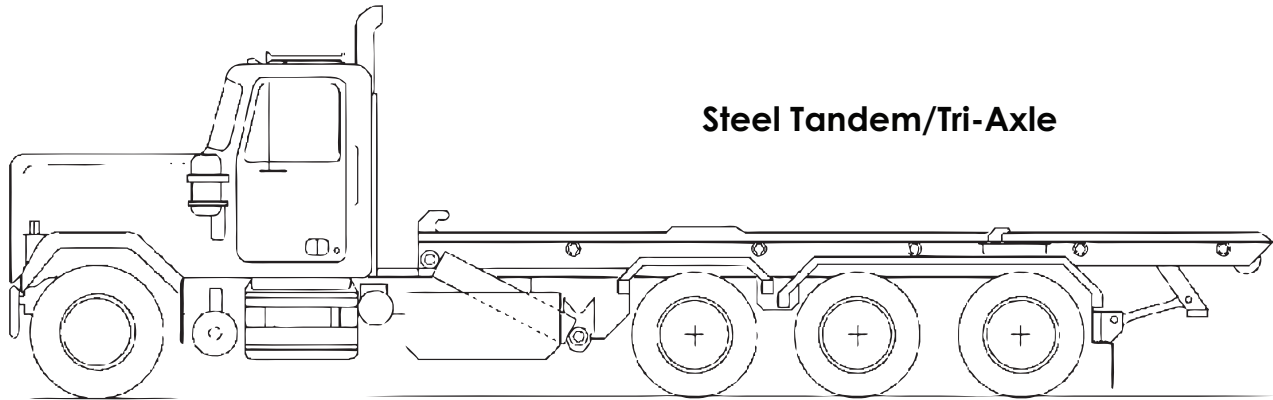
Tighten Dump Up Light Kit to the bracket.



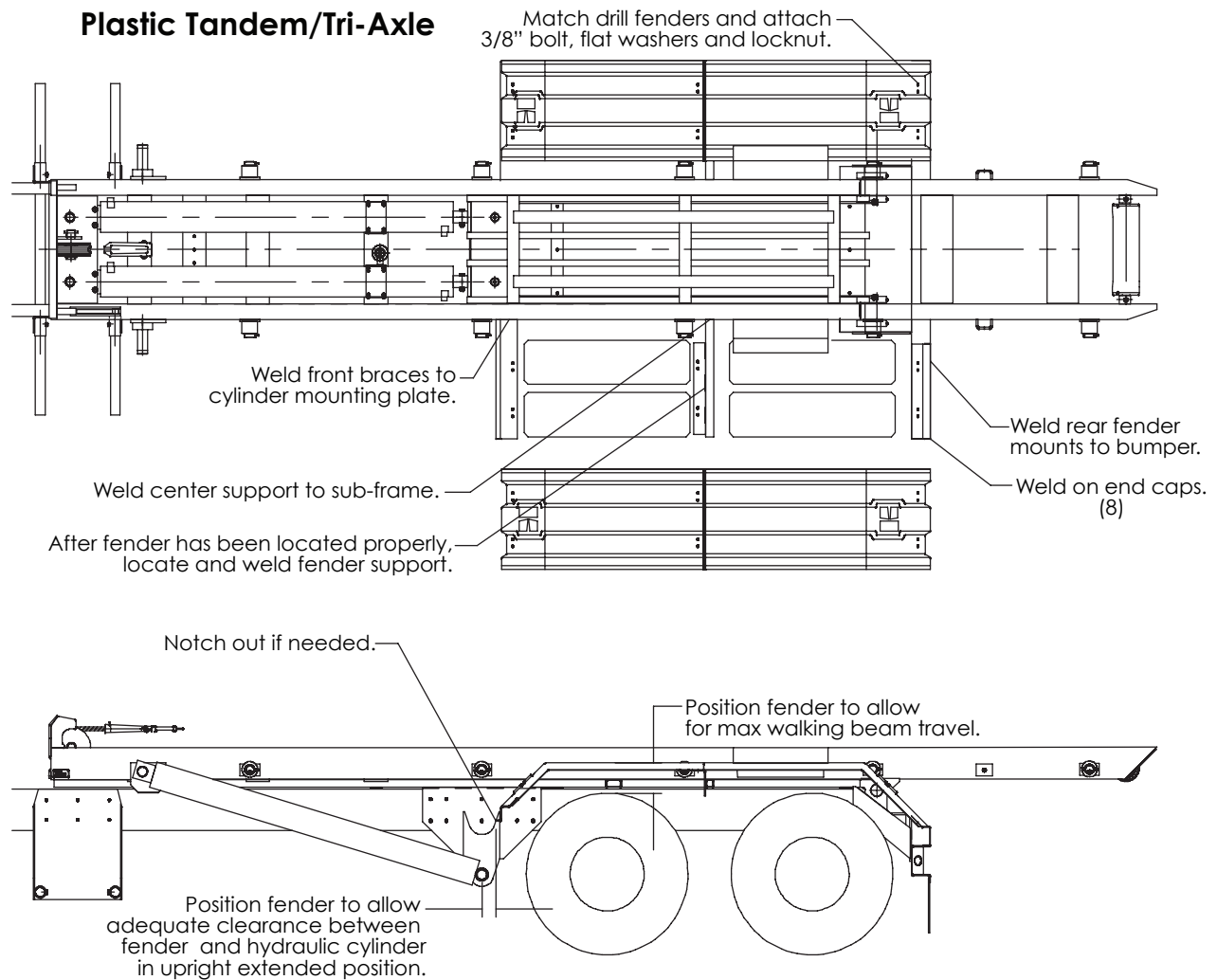
Note: See Electrical Schematic in the Hydraulic-Electrical Chapter for wiring diagram.



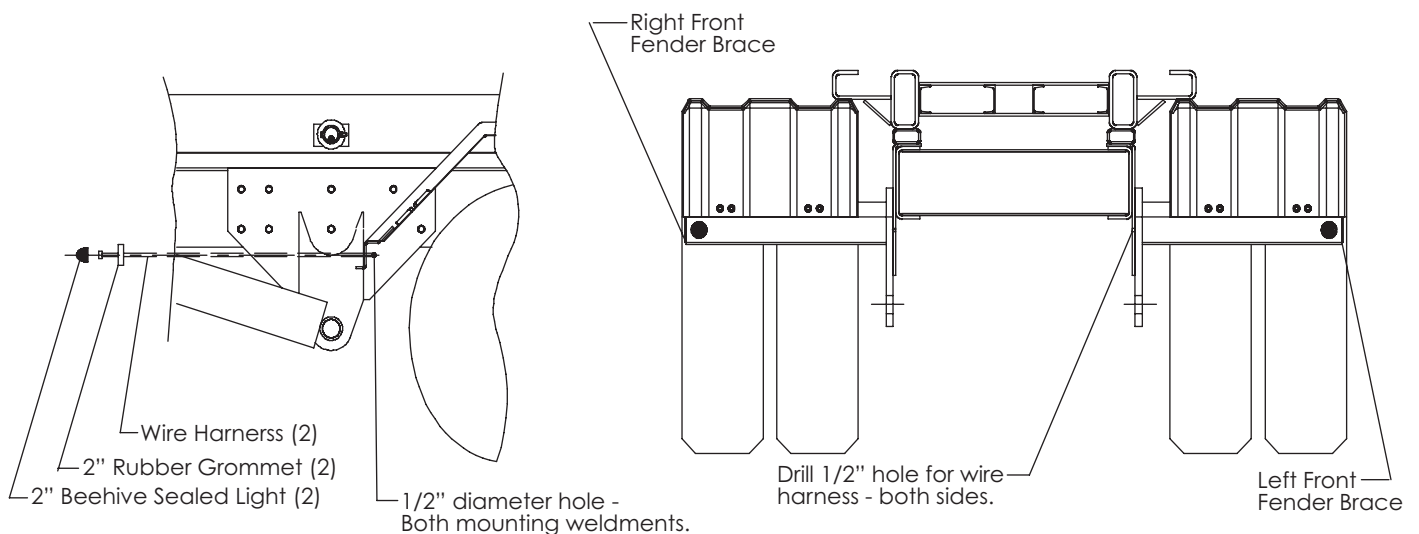
# Step 12a: Fender Installation - Steel Tandem/Tri-Axle



## Step 12b: Fender Installation - Plastic Tandem/Tri-Axle

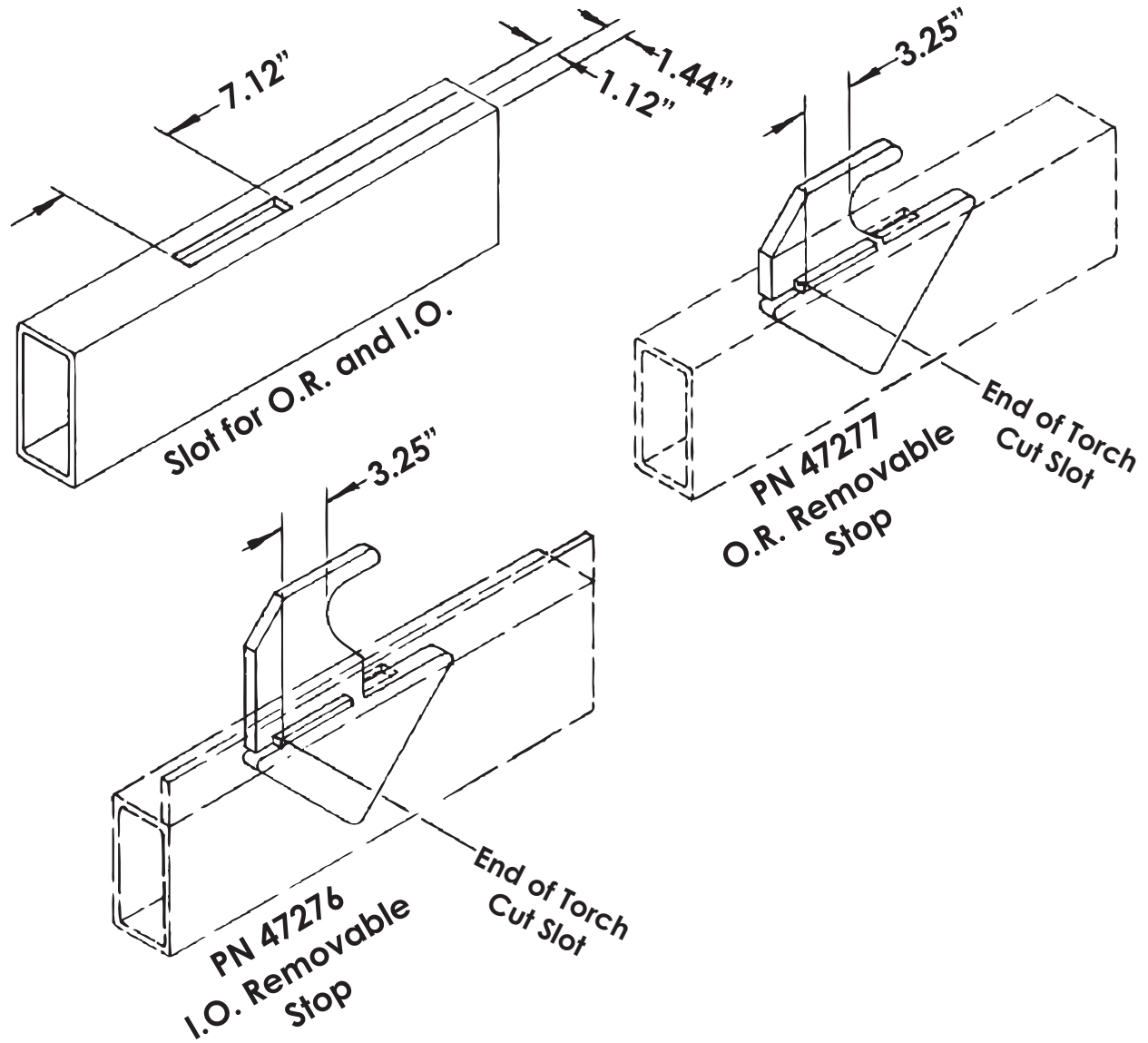


## Step 13: Mid-Body Light Installation



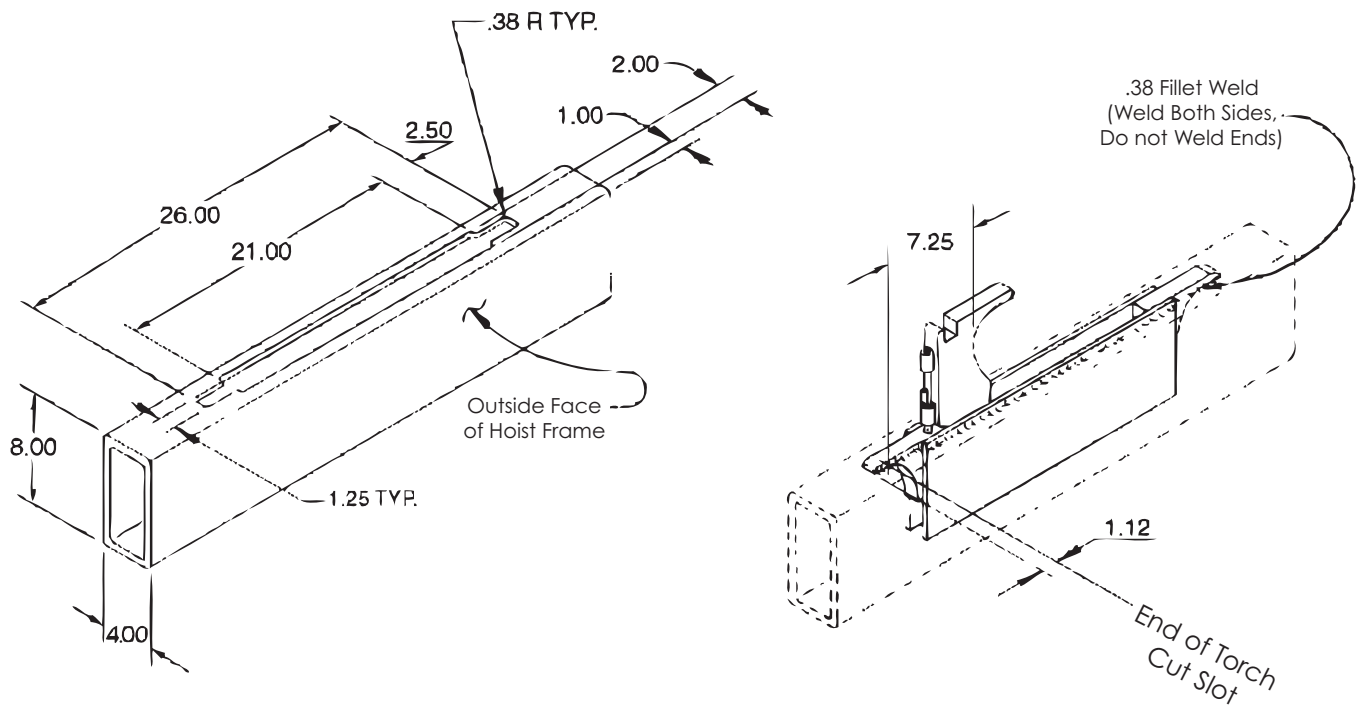


## Step 14a: Removable Stop Installation

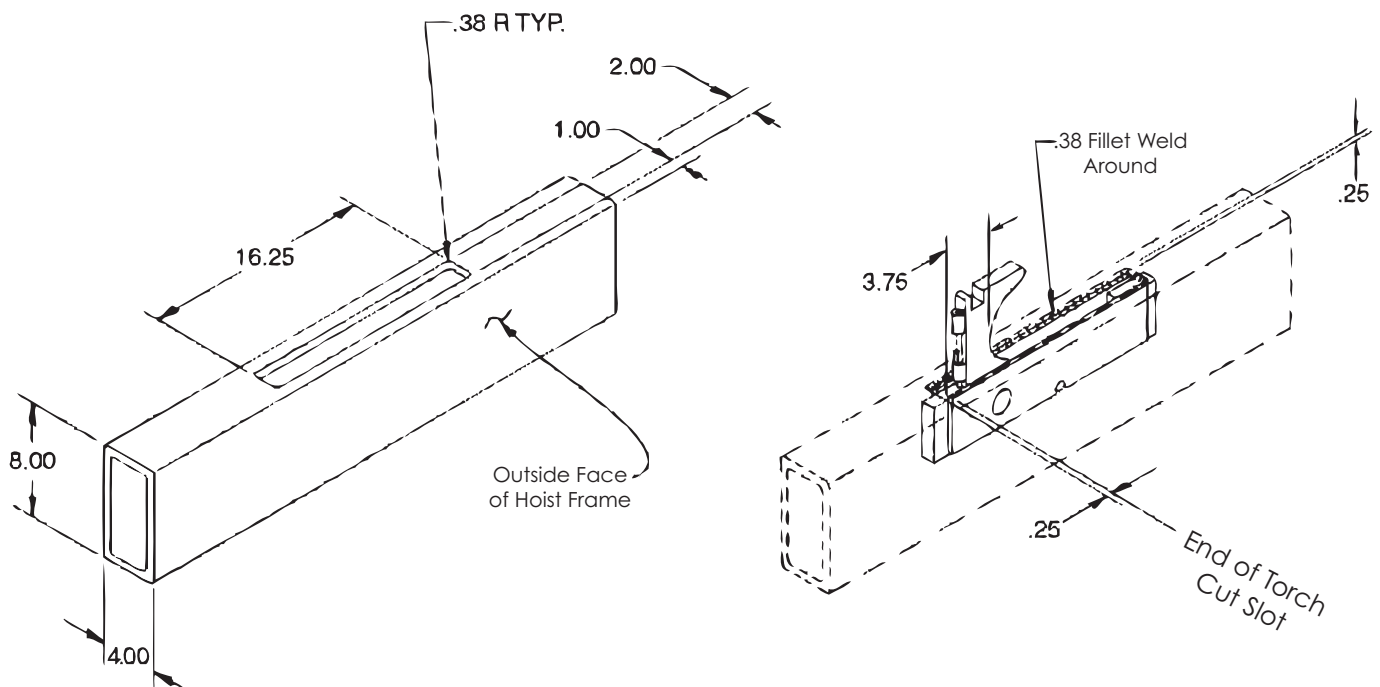


## Step 14b: Intermediate Stop Installation

### 47272 I.O. Fold Down Stop



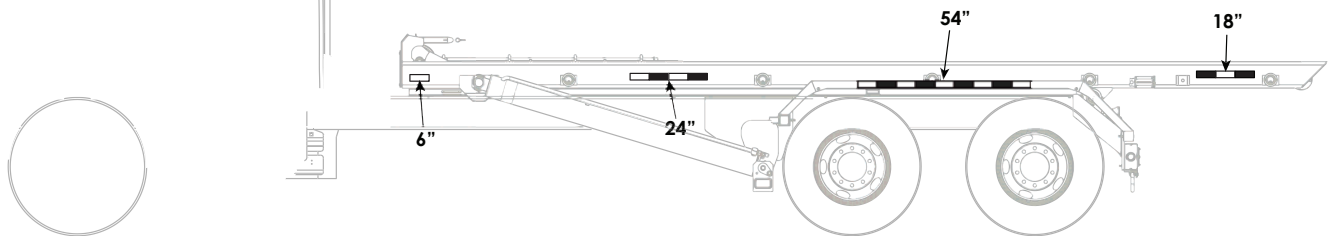
### PN 45621 O.R. Fold Down Stop



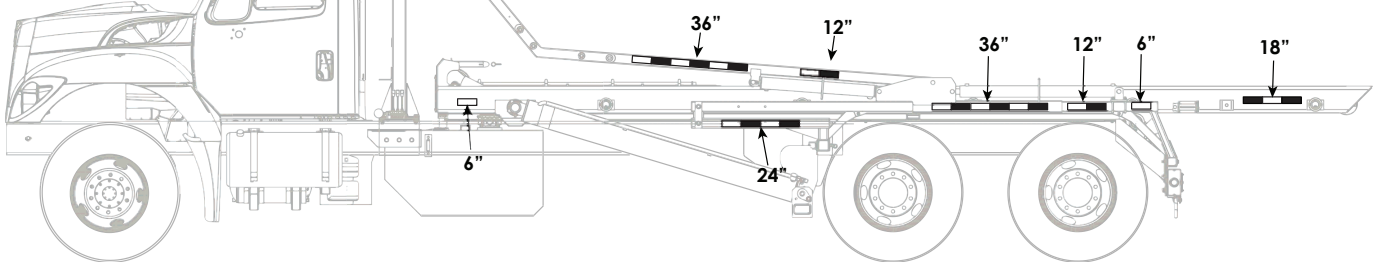
# Step 15: Reflective Tape Installation

REF. ANSI Standard  
Z245.1-1999  
Z.2.16 Vehicle Conspicuity

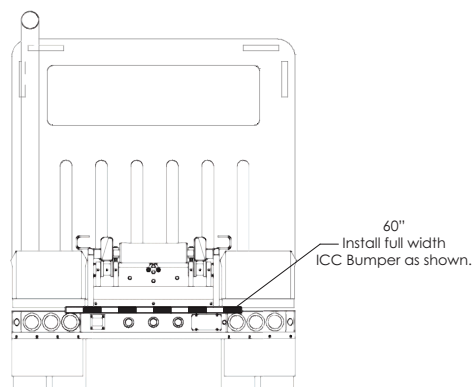
**PN 63907**  
(Both Sides - No Tarper)



**PN 63907**  
(Both Sides - With Tarper)



**Back**  
(All models)

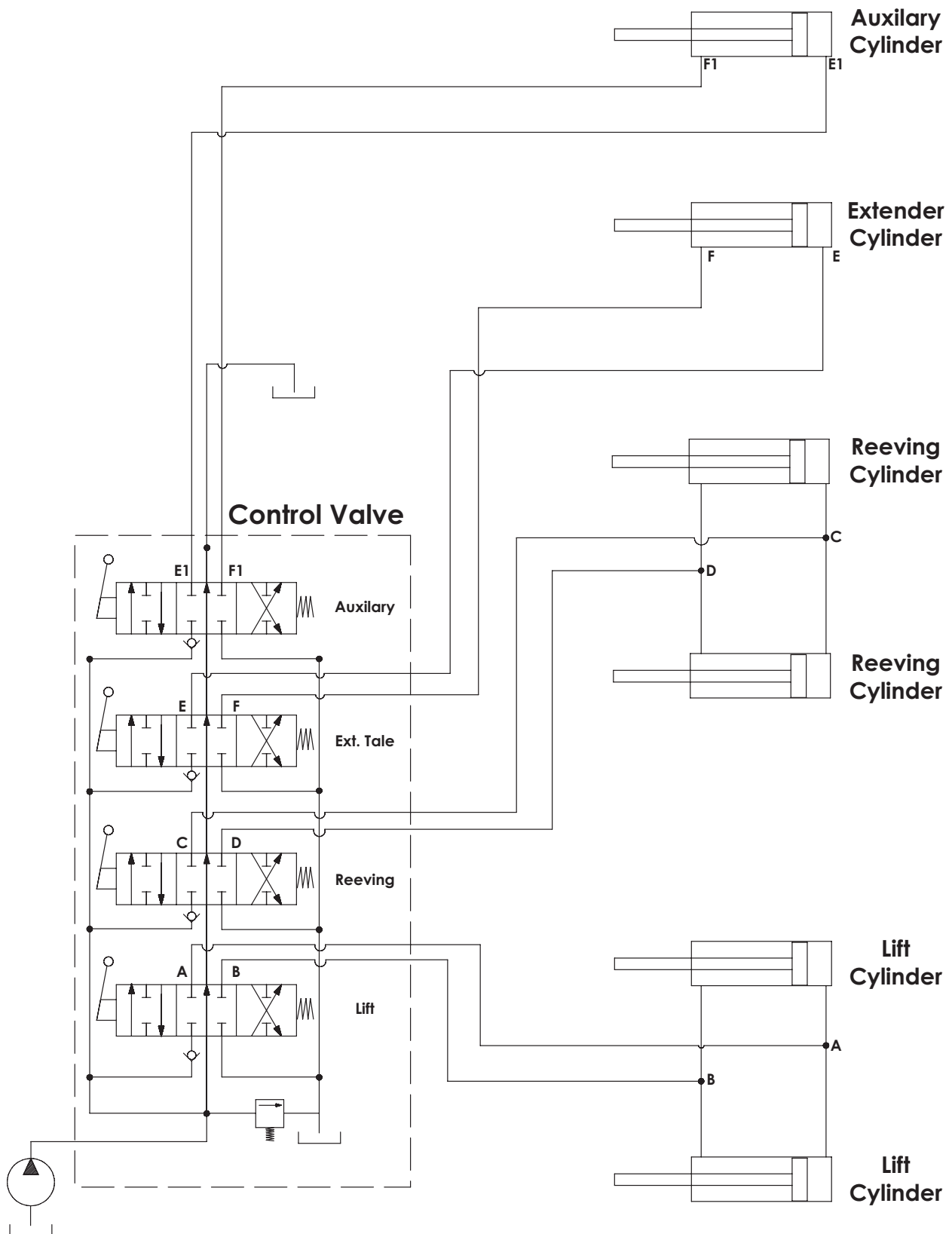


**NOTE:**  
Reflective tape locations and lengths are for reference. Your reflective tape location may differ due to equipment options. Reflective tape to cover truck chassis or hoist frame per ANSI Standard Z245-1-1999

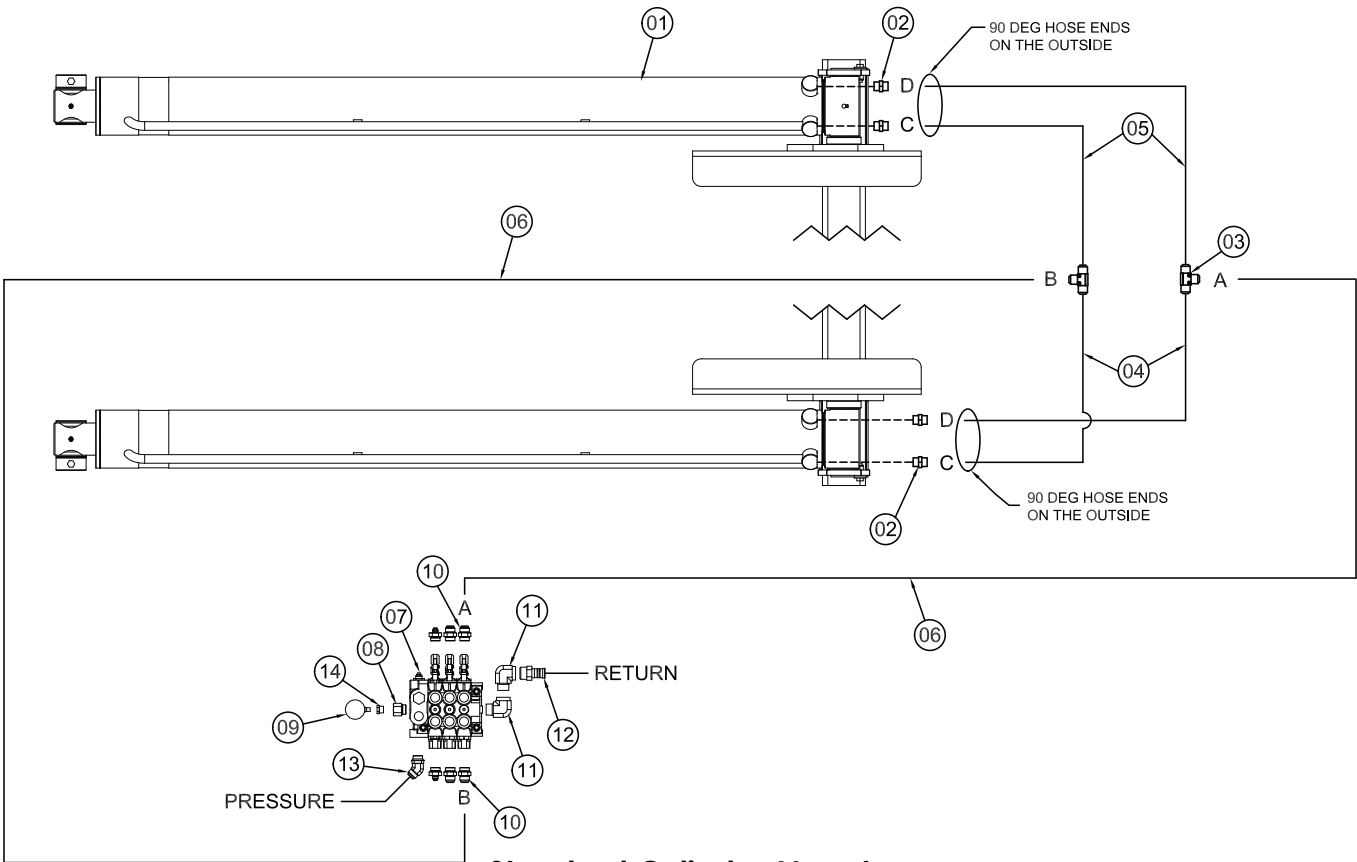


# Chapter 7 - Hydraulics - Electrical

## Hydraulic Schematic



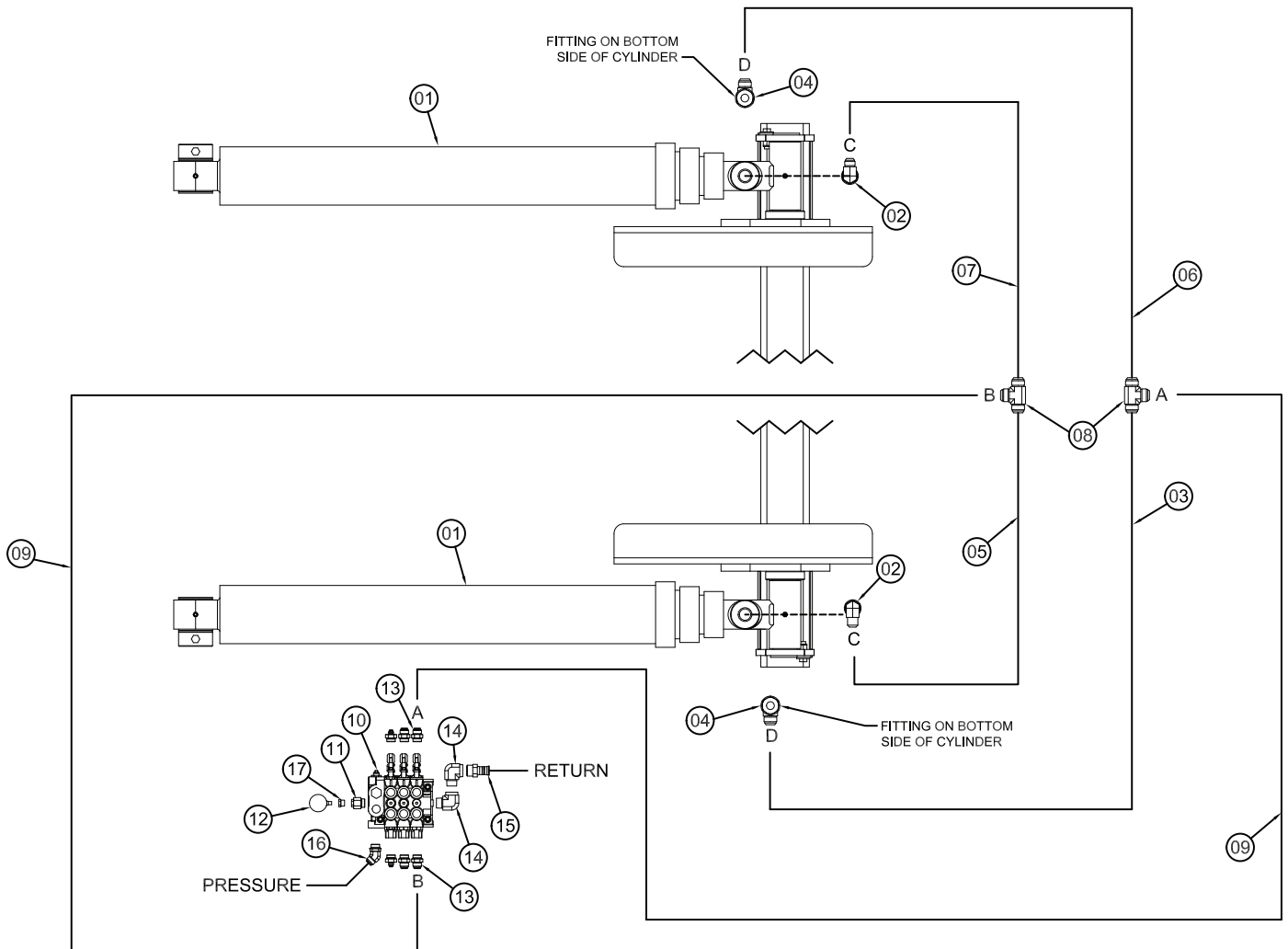
# Hydraulic Routing - Standard Lift Cylinder



Standard Cylinder Mount

ITEM	PART	DESCRIPTION	QTY	ITEM	PART	DESCRIPTION	QTY
01	55417	CYLINDER 6.00X72.00 LIFT	2	08	D1306	FTG ADAPT MSTR/FSTR 16-12 F5OG5	1
02	C4498	FTG ADAPT MSTR/MJIC 12-F5OX-S	4	09	10094	GAUGE OIL LF 2.5 0-5000 BM	1
03	45585	FTG TEE JIC 12 JTX-S	2	10	46650	FTG ADAPT MSTR/MJIC 16 F5OX-S	2
04	64064	HOSE 0.75(471TC-06-39-12-12-12-60)	2	11	9758	FTG ST TH-F PIPE EL 90 6805-20-20	2
05	64065	HOSE 0.75(471TC-06-39-12-12-12-70)	2	12	C2282	FTG 1.25 NPT TO 1.25 BARB	1
06	45904	HOSE 0.75X192.00 JIC F KPAC	2	13	45802	FTG ADAPT MJIC/MORING 16-16 45 DEG	1
07	46641	VB 3-SECT V42 KIT	1	14	30541	FTG ML O'RING/FM PIPE 6405-12-04	1

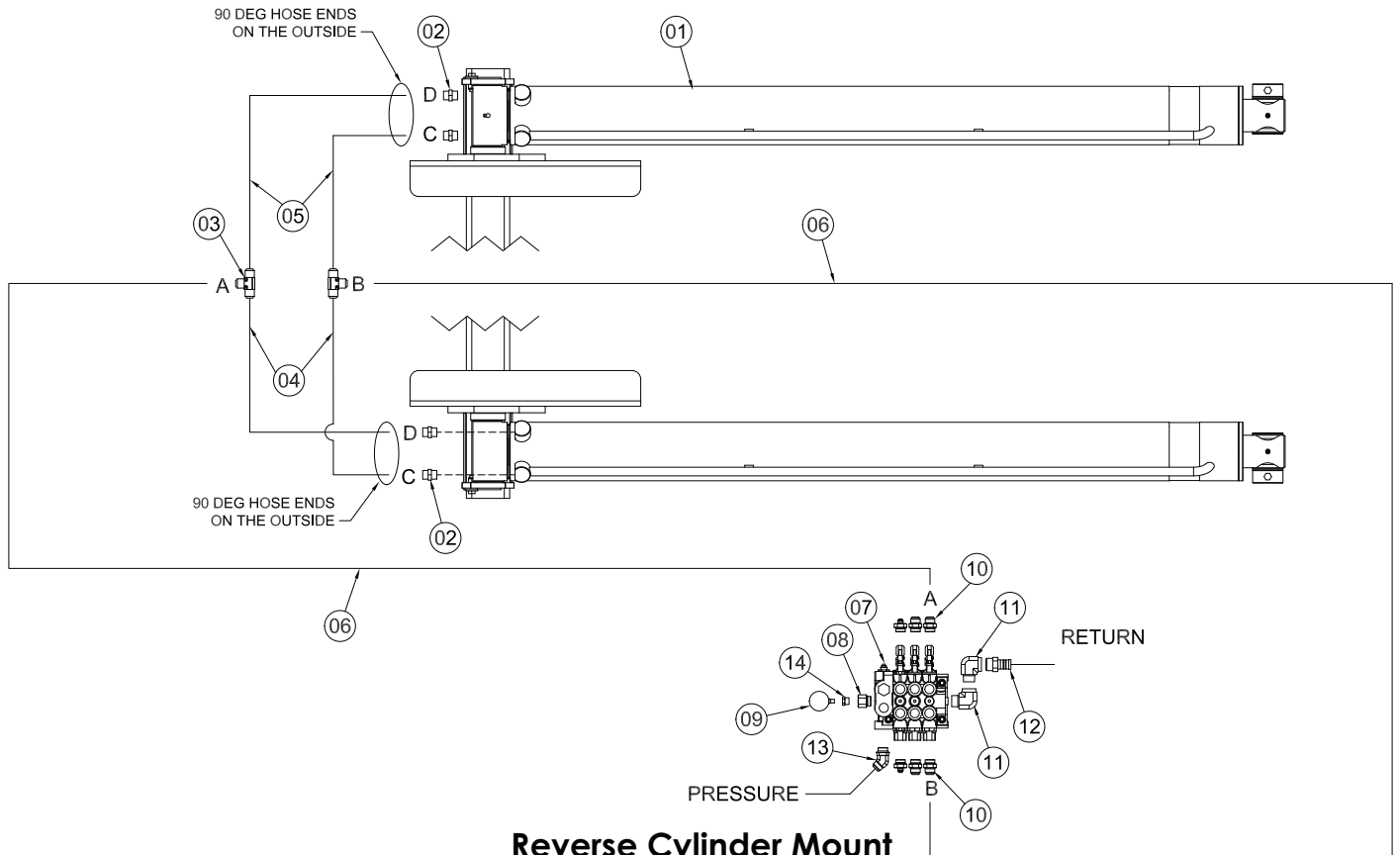
# Hydraulic Routing - Telescopic Lift Cylinder



## Telescopic Cylinder Mount

ITEM	PART	DESCRIPTION	QTY	ITEM	PART	DESCRIPTION	QTY
01	45737	CYLINDER 5.50X185.75 TELO KPAC	2	10	46641	VB 3-SECT V42 KIT	1
02	46114	FTG MJIC/MSTR 90 12-16 C5OX	2	11	D1306	FTG ADAPT MSTR/FSTR 16-12 F5OG5	1
03	64702	HOSE 1.00(451TC-06-06-16-16-12-60)	1	12	10094	GAUGE OIL LF 2.5 0-5000 BM	1
04	46113	FTG 90DEG MSTR/MJIC 16-20C5OX	2	13	46650	FTG ADAPT MSTR/MJIC 16 F5OX-S	2
05	64064	HOSE 0.75(471TC-06-39-12-12-12-60)	1	14	9758	FTG ST TH-F PIPE EL 90 6805-20-20	2
06	64703	HOSE 1.00(451TC-06-06-16-16-12-70)	1	15	C2282	FTG 1.25 NPT TO 1.25 BARB	1
07	64065	HOSE 0.75(471TC-06-39-12-12-12-70)	1	16	45802	FTG ADAPT MJIC/MORING 16-16 45 DEG	1
08	<b>45585</b>	FTG TEE JIC 12 JTX-S	2	17	30541	FTG ML O'RING/FM PIPE 6405-12-04	1
09	64701	HOSE 1.00(451TC-06-06-16-16-12-110)	2				

## Hydraulic Routing - Reverse Mount Lift Cylinder



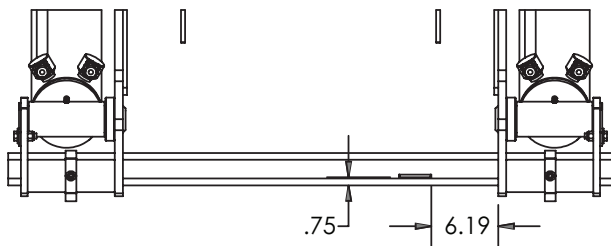
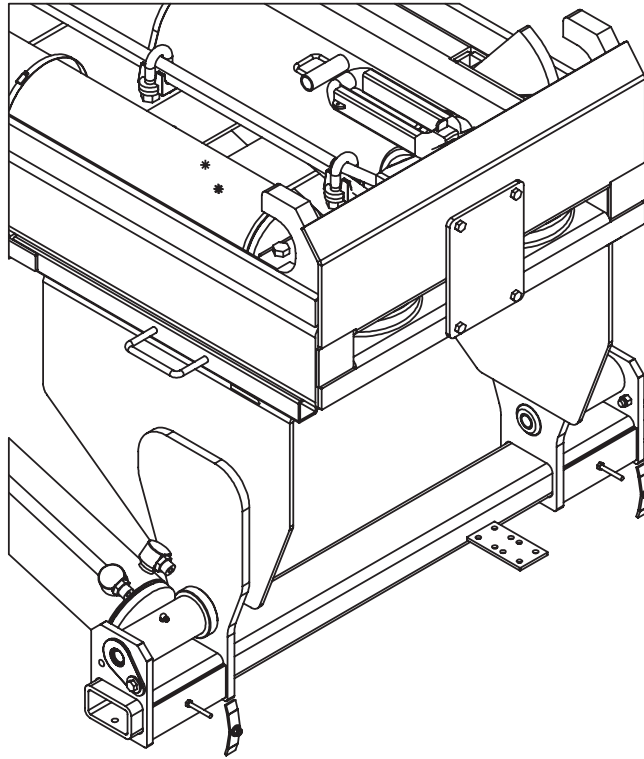
## Reverse Cylinder Mount

ITEM	PART	DESCRIPTION	QTY	ITEM	PART	DESCRIPTION	QTY
01	55417	CYLINDER 6.00X72.00 LIFT	2	08	D1306	FTG ADAPT MSTR/FSTR 16-12 F5OG5	1
02	C4498	FTG ADAPT MSTR/MJIC 12-F5OX-S	4	09	10094	GAUGE OIL LF 2.5 0-5000 BM	1
03	45585	FTG TEE JIC 12 JTX-S	2	10	46650	FTG ADAPT MSTR/MJIC 16 F5OX-S	2
04	64064	HOSE 0.75(471TC-06-39-12-12-12-60)	2	11	9758	FTG ST TH-F PIPE EL 90 6805-20-20	2
05	64065	HOSE 0.75(471TC-06-39-12-12-12-70)	2	12	C2282	FTG 1.25 NPT TO 1.25 BARB	1
06	46111	HOSE 0.75X39.00 JIC F KPAC	2	13	45802	FTG ADAPT MJIC/MORING 16-16 45 DEG	1
07	46641	VB 3-SECT V42 KIT	1	14	30541	FTG ML O'RING/FM PIPE 6405-12-04	1

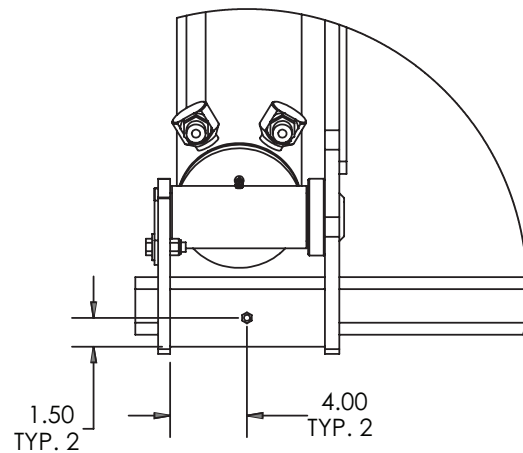
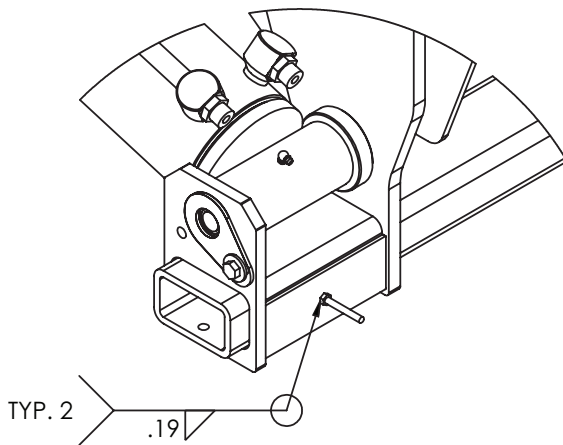
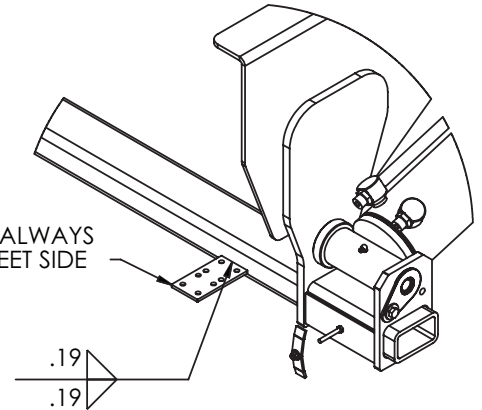


# Reverse Mount Lift Cylinder Mounting Kit - PN 56094

Part 1



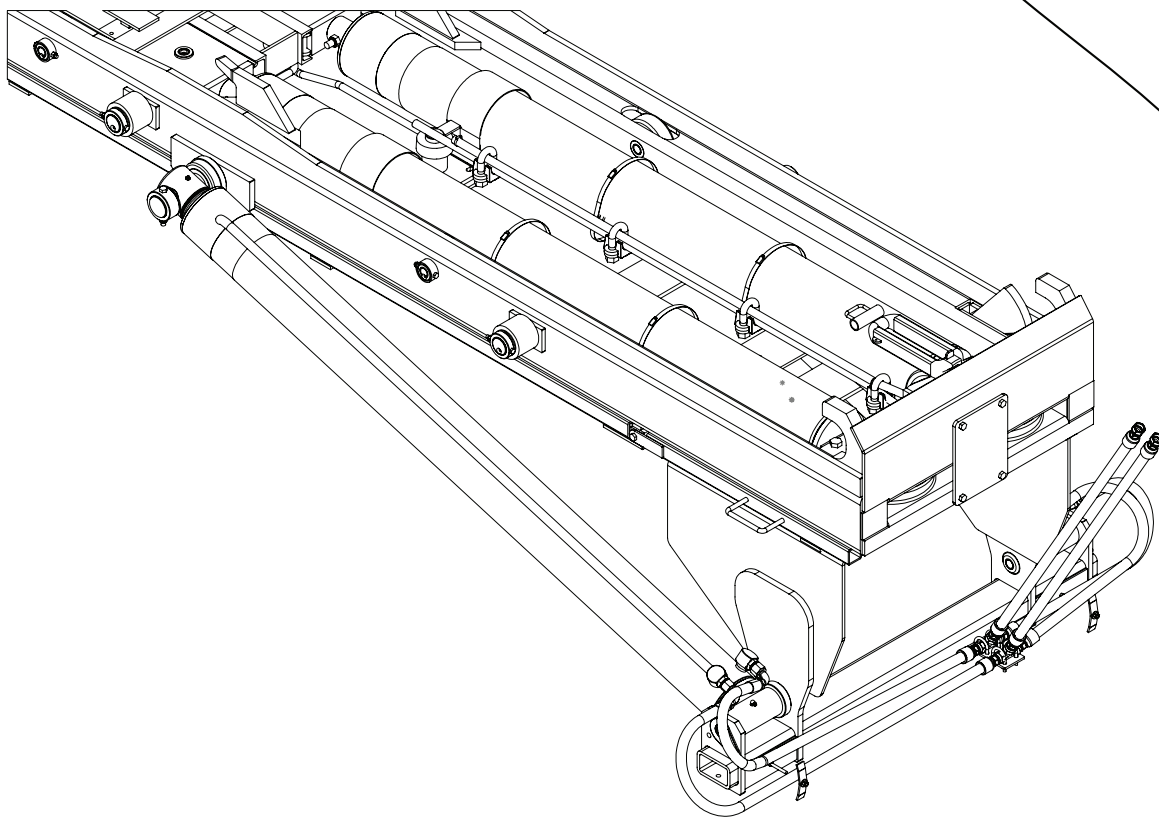
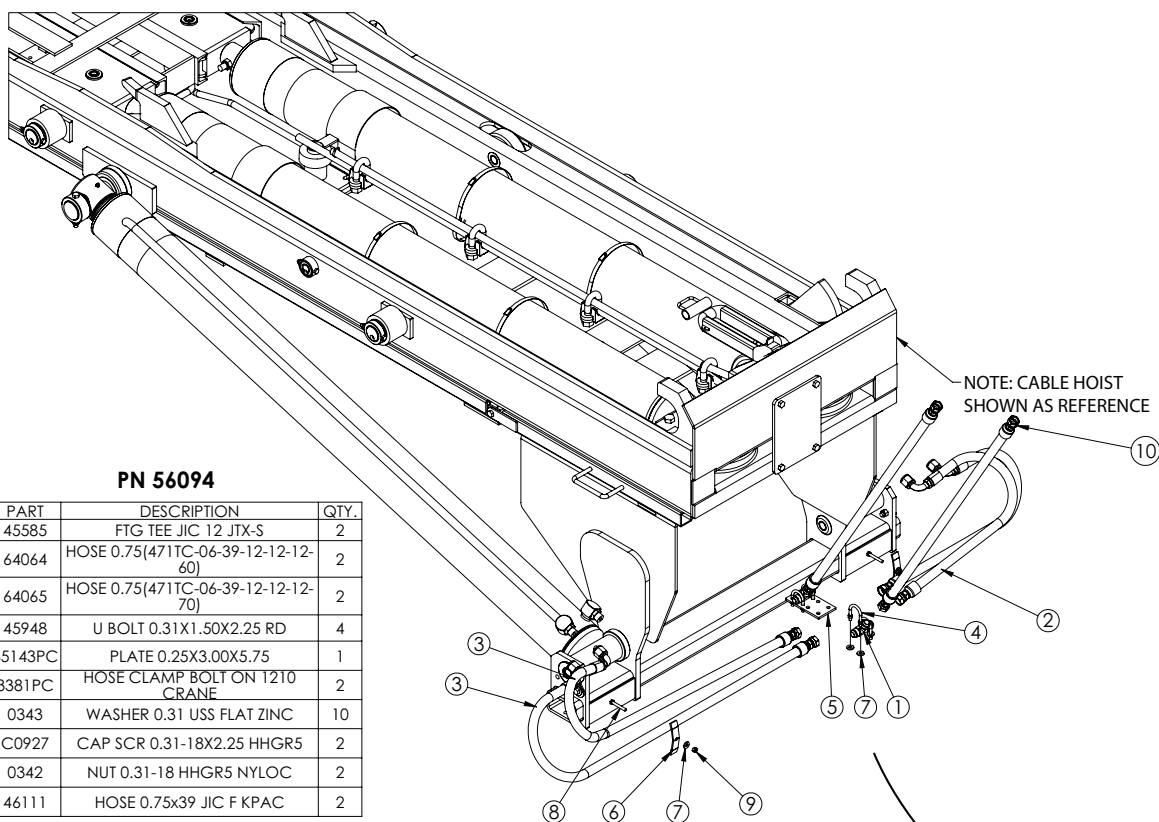
NOTE: PN:45143 ALWAYS WELDED ON STREET SIDE



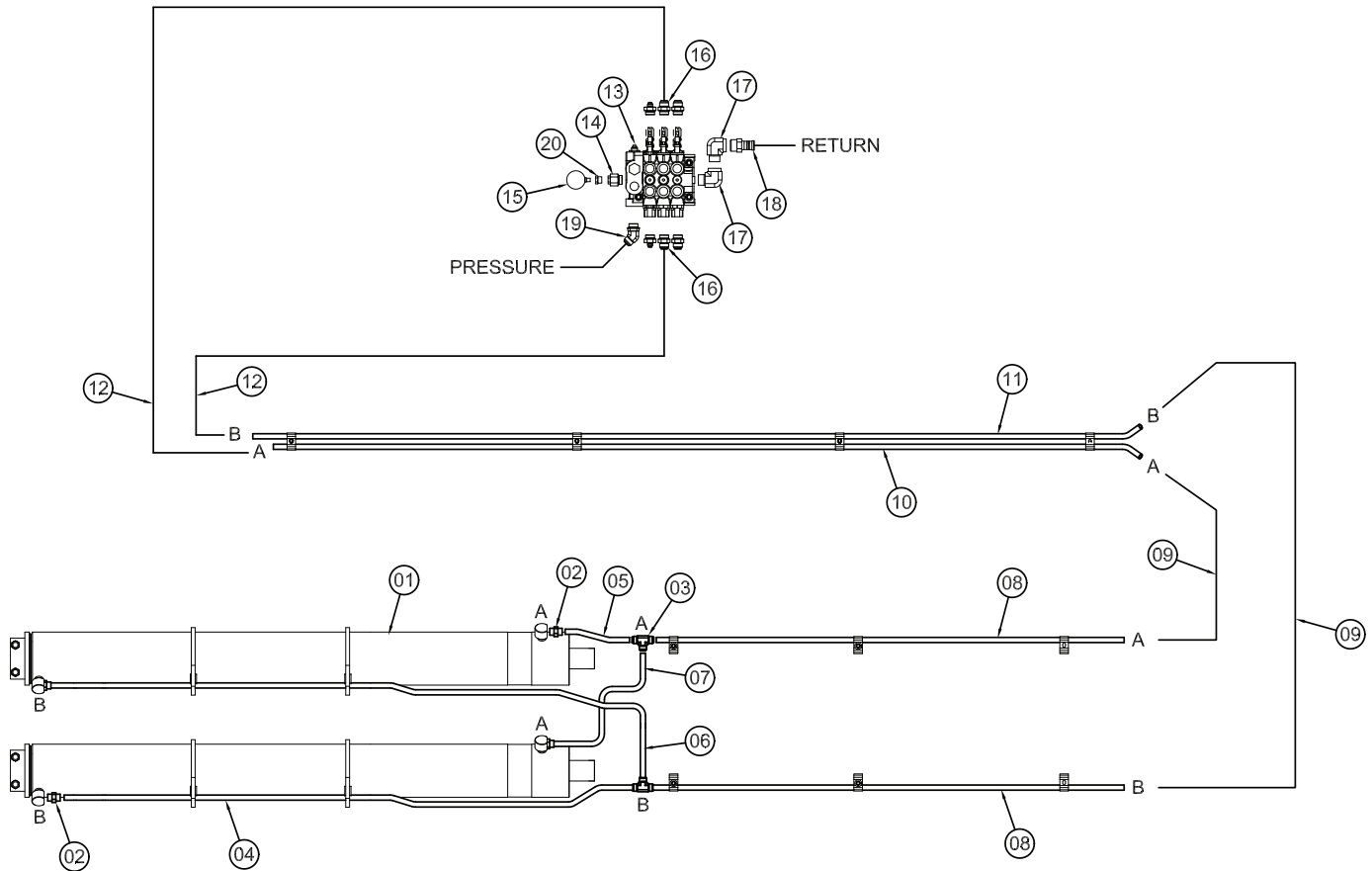
# Reverse Mount Lift Cylinder Mounting Kit - PN 56094

## Part 2

PN 56094			
ITEM	PART	DESCRIPTION	QTY.
1	45585	FTG TEE JIC 12 JTX-S	2
2	64064	HOSE 0.75(471TC-06-39-12-12-12-60)	2
3	64065	HOSE 0.75(471TC-06-39-12-12-12-70)	2
4	45948	U BOLT 0.31X1.50X2.25 RD	4
5	45143PC	PLATE 0.25X3.00X5.75	1
6	3381PC	HOSE CLAMP BOLT ON T210 CRANE	2
7	0343	WASHER 0.31 USS FLAT ZINC	10
8	C0927	CAP SCR 0.31-18X2.25 HHGR5	2
9	0342	NUT 0.31-18 HHGR5 NYLOC	2
10	46111	HOSE 0.75x39 JIC F KPAC	2



# Hydraulic Routing - Reeving Cylinder

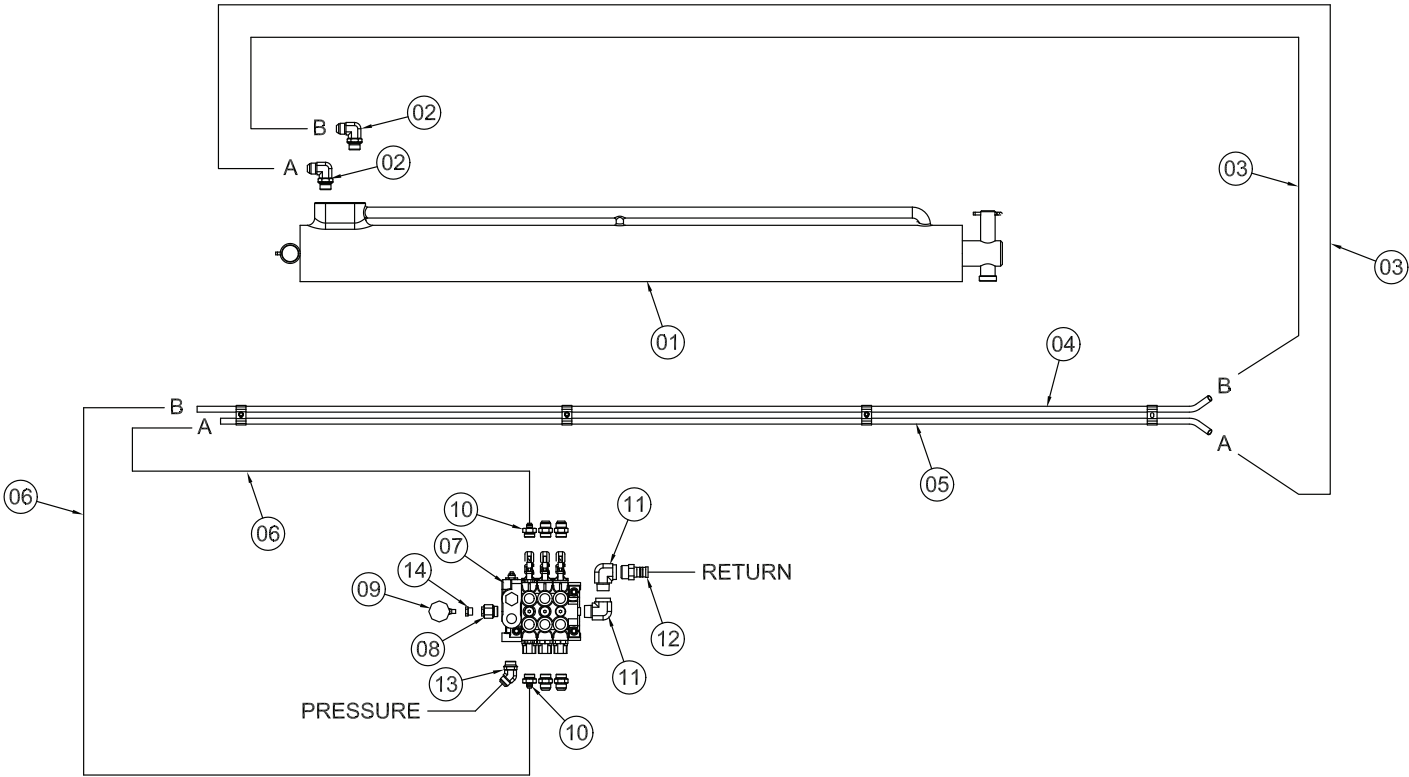


**Reeving Cylinder**

ITEM	PART	DESCRIPTION	QTY	ITEM	PART	DESCRIPTION	QTY
01	45243	CYLINDER 7.00X80.00 KPAC	2	10	45593	TUBE ASM 0.75X176.00 JIC KP6024-462 YZ	1
*	45349	CYLINDER 7X90 DA WINCH KPAC	2	11	45592	TUBE ASM 0.75X176.00 JIC KP6024-462 YZ	1
02	C4498	FTG ADAPT MSTR/MJIC 12-F5OX-S	4	12	45767	HOSE 0.75X70.00 JIC F/M KPAC	2
03	45585	FTG TEE JIC 12 JTX-S	2	13	46641	VB 3-SECT V42 KIT	1
04	58392	TUBE ASM 0.75X94.94 JIC YZ	1	14	D1306	FTG ADAPT MSTR/FSTR 16-12 F5OG5	1
*	60323	TUBE ASM 0.75X104.94 JIC YZ	1	15	10094	GAUGE OIL LF 2.5 0-5000 BM	1
05	58389	TUBE ASM 0.75X11.50 JIC YZ	1	16	46650	FTG ADAPT MSTR/MJIC 16 F5OX-S	2
06	58391	TUBE ASM 0.75X96.82 JIC YZ	1	17	9758	FTG ST TH-F PIPE EL 90 6805-20-20	2
*	60324	TUBE ASM 0.75X106.82 JIC YZ	1	18	C2282	FTG 1.25 NPT TO 1.25 BARB	1
07	58390	TUBE ASM 0.75X14.06 JIC YZ	1	19	45802	FTG ADAPT MJIC/MORING 16-16 45 DEG	1
08	45590	TUBE ASM 0.75X93.00 JIC 24-429 YZ	2	20	30541	FTG ML O'RING/FM PIPE 6405-12-04	1
09	45591	HOSE 0.75X25.00 JIC M KPAC	2				

\* USED FOR 194" MODLES

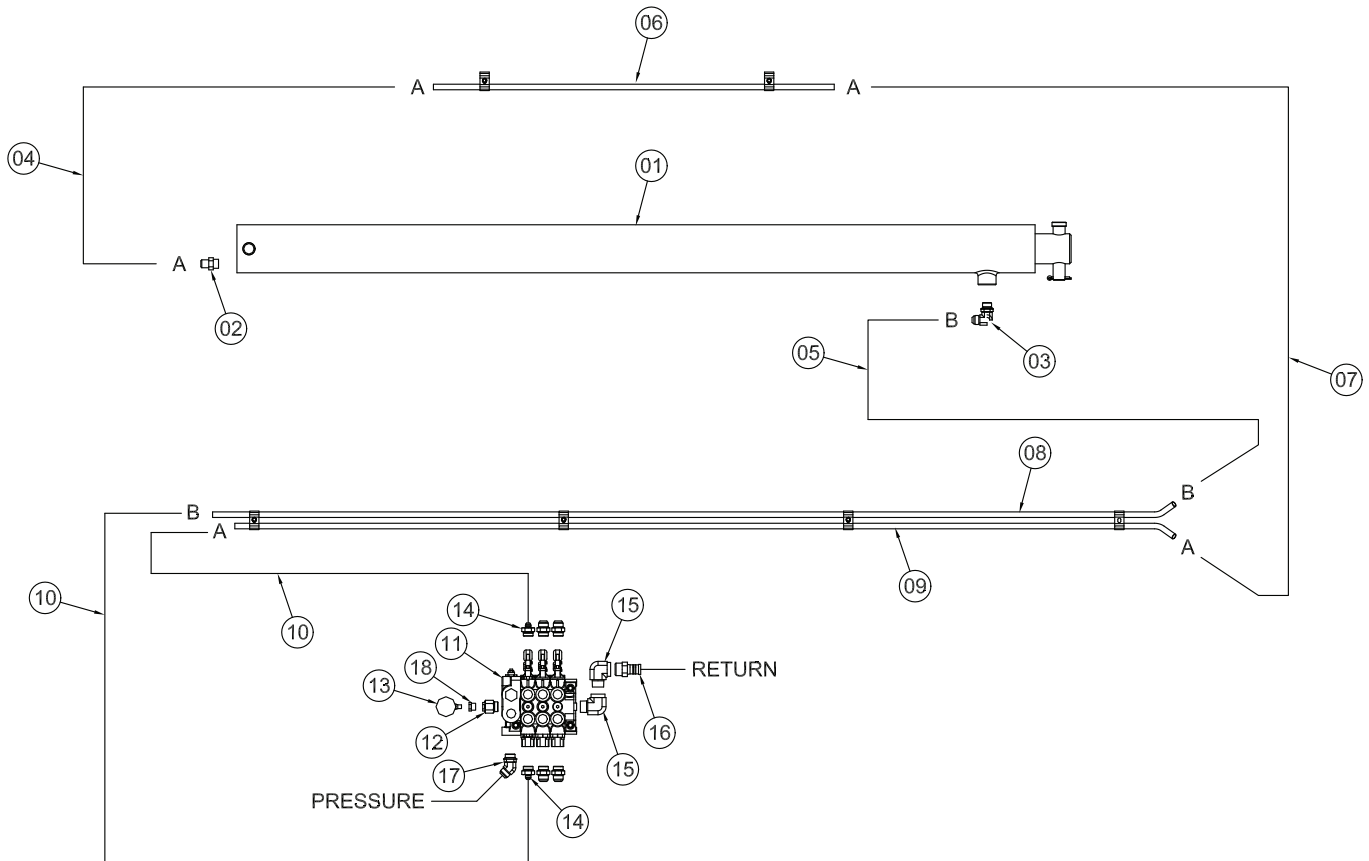
# Hydraulic Routing - Tail Extension IOX Cylinder Mount



Tail Extension IOX Cylinder Mount

ITEM	PART	DESCRIPTION	QTY	ITEM	PART	DESCRIPTION	QTY
01	46153	CYLINDER 3.50X40.00 KP60 IOX	1	08	D1306	FTG ADAPT MSTR/FSTR 16-12 F5OG5	1
02	46680	FTG ADAPT MSTR/MJIC 8 F5OX-S	2	09	10094	GAUGE OIL LF 2.5 0-5000 BM	1
03	46673	HOSE 0.50X25.00 JIC F/M KPAC	2	10	46643	FTG ADAPT MSTR/MJIC 8-16 F5OX-S	2
04	46129	TUBE ASM 0.50X179.00 JIC KP6024-468	1	11	9758	FTG ST TH-F PIPE EL 90 6805-20-20	2
05	46128	TUBE ASM 0.50X176.00 JIC KP6024-467	1	12	C2282	FTG 1.25 NPT TO 1.25 BARB	1
06	46644	HOSE 0.50X70.00 JIC F/M KPAC	2	13	45802	FTG ADAPT MJIC/MORING 16-16 45 DEG	1
07	46641	VB 3-SECT V42 KIT	1	14	30541	FTG ML O'RING/FM PIPE 6405-12-04	1

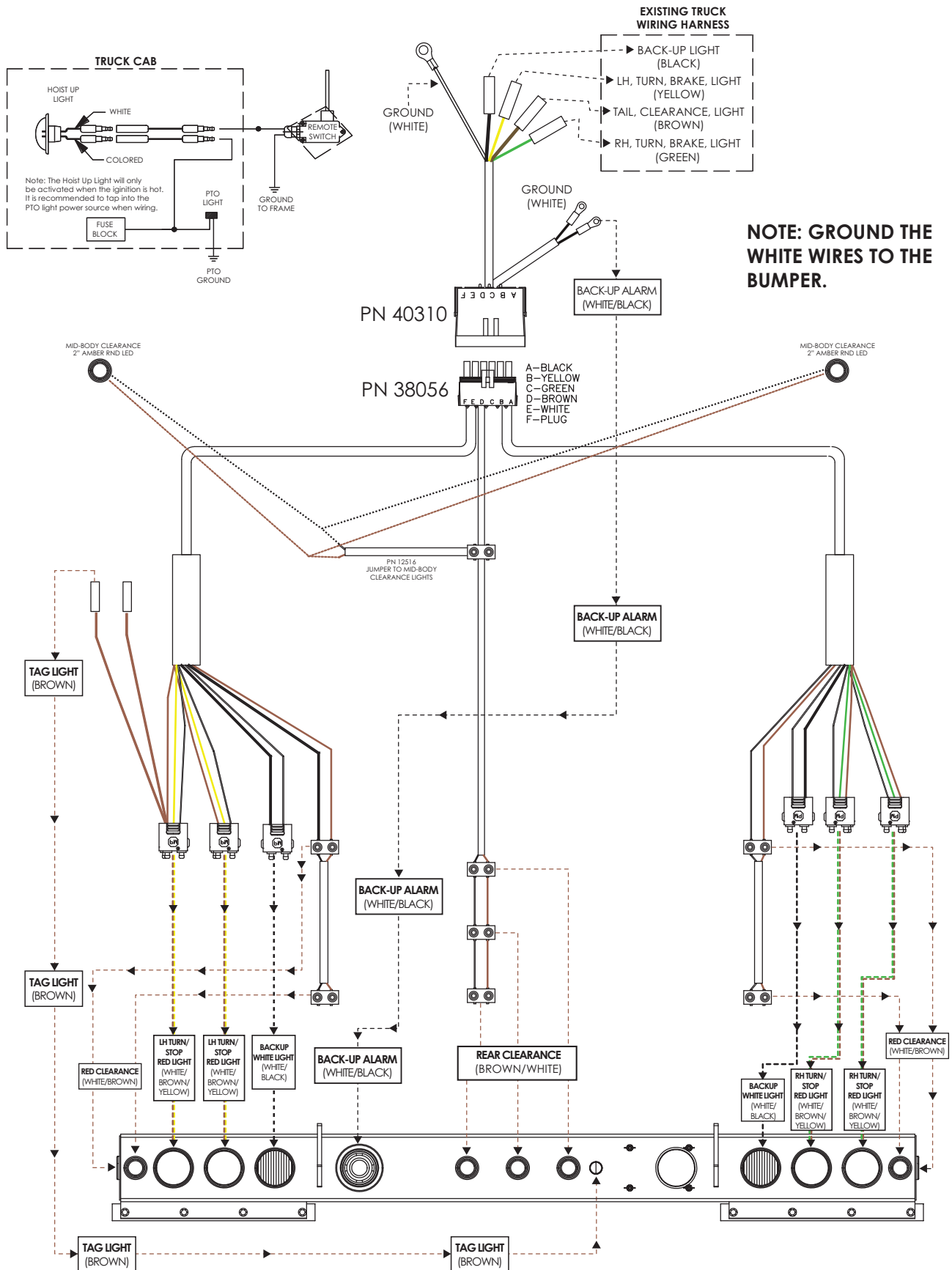
# Hydraulic Routing - Tail Extension ORX Cylinder Mount



**Tail Extension ORX Cylinder Mount**

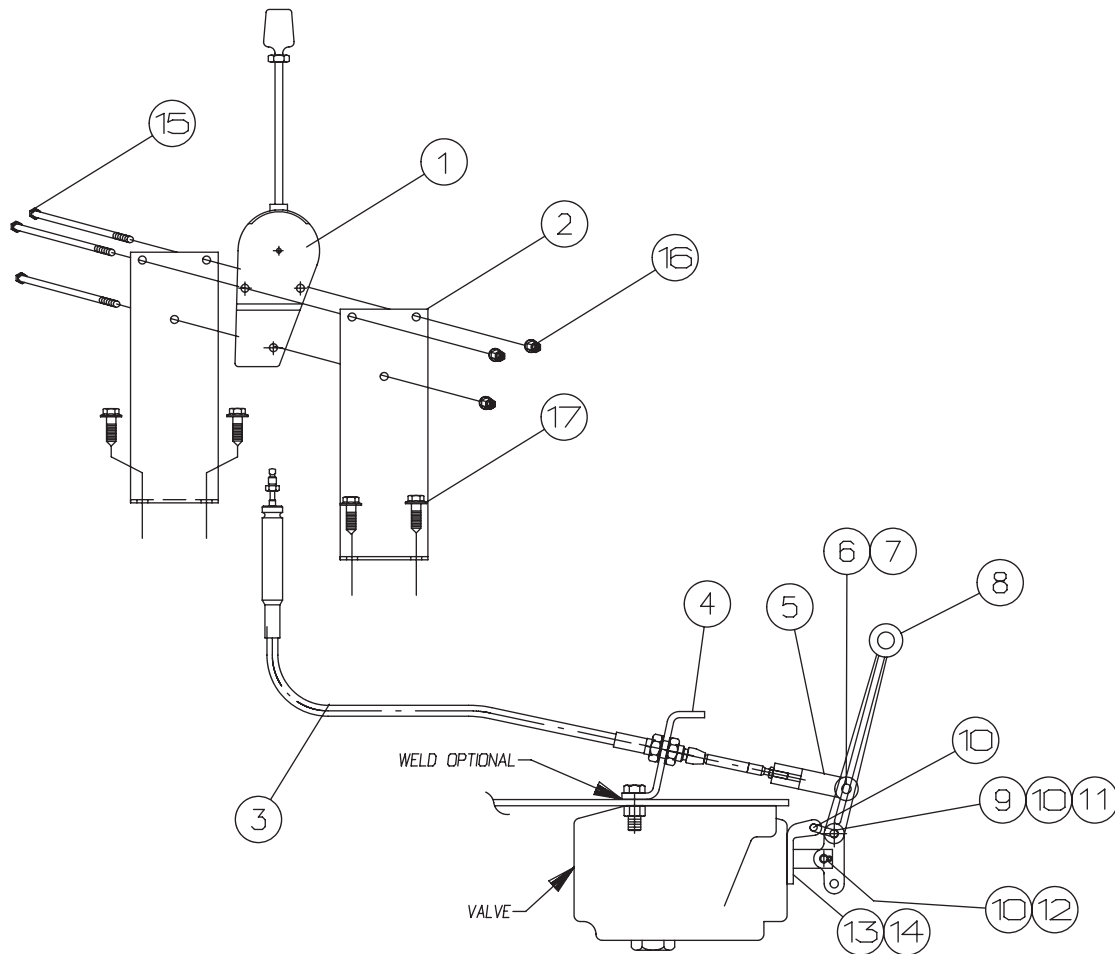
ITEM	PART	DESCRIPTION	QTY	ITEM	PART	DESCRIPTION	QTY
01	45611	CYLINDER 3.50X80.00 KP60 ORX	1	10	46644	HOSE 0.50X70.00 JIC F/M KPAC	2
02	4594	FTG ADAPT MSTR/MJIC 8 F5OX-S	1	11	46641	VB 3-SECT V42 KIT	1
03	46680	FTG MJIC/MSTR 90 8 C5OX	1	12	D1306	FTG ADAPT MSTR/FSTR 16-12 F5OG5	1
04	46681	HOSE 0.50X37.00 JIC F/M KPAC	2	13	10094	GAUGE OIL LF 2.5 0-5000 BM	1
05	46673	HOSE 0.50X25.00 JIC F/M KPAC	1	14	46643	FTG ADAPT MSTR/MJIC 8-16 F5OX-S	2
06	46682	TUBE ASM 0.50X62.00 JIC	1	15	9758	FTG ST TH-F PIPE EL 90 6805-20-20	2
07	46893	HOSE 0.50X25.00 JIC M KPAC	1	16	C2282	FTG 1.25 NPT TO 1.25 BARB	1
08	46129	TUBE ASM 0.50X179.00 JIC KP6024-468	1	17	45802	FTG ADAPT MJIC/MORING 16-16 45 DEG	1
09	46128	TUBE ASM 0.50X176.00 JIC KP6024-467	1	18	30541	FTG ML O'RING/FM PIPE 6405-12-04	1

# Electrical Schematics



# Chapter 8 - Assembly Drawings

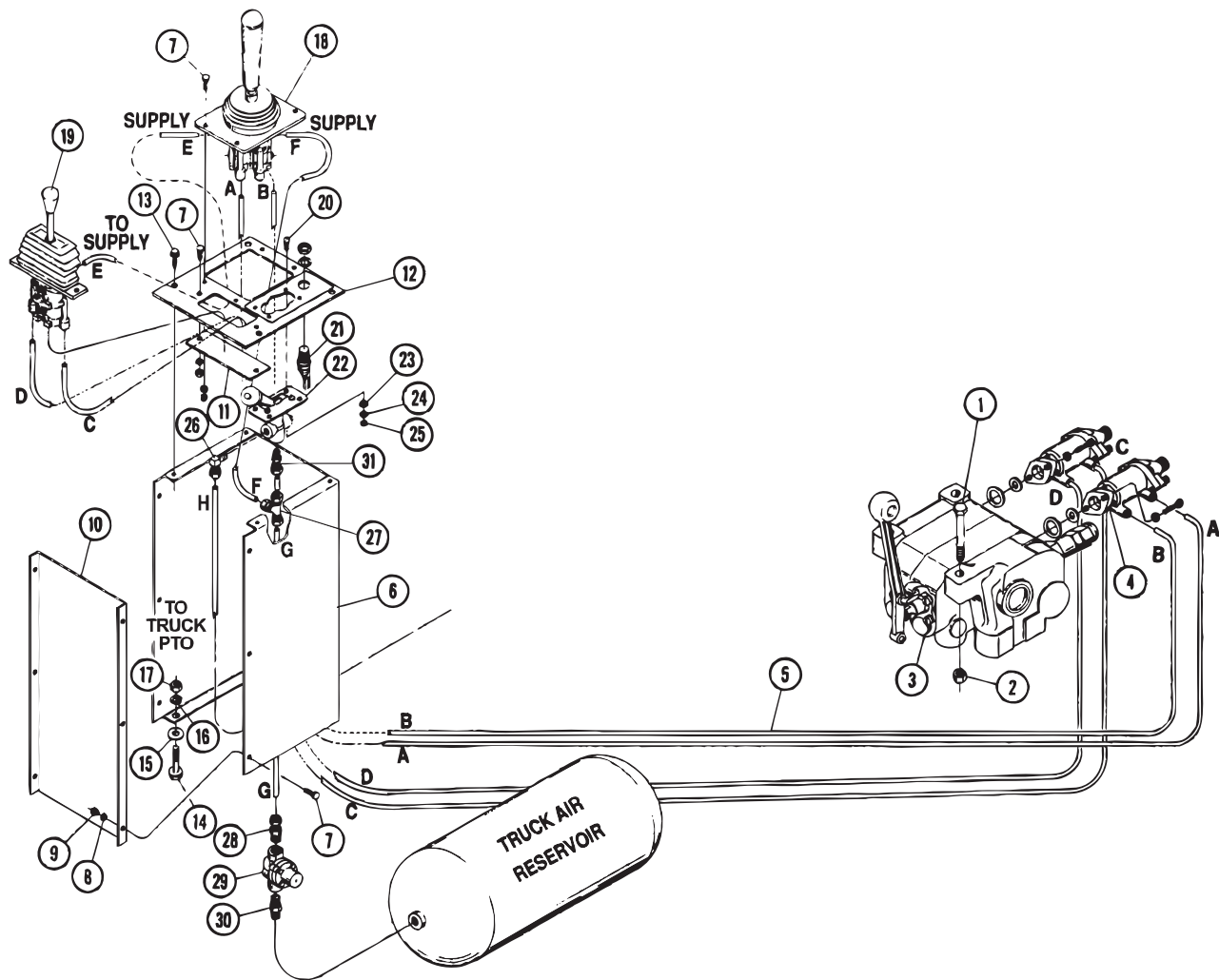
## Cable Controls



Item	PN	Description	Qty.	
			2 SPOOL	3 SPOOL
1	46734	CONTROLLER STR NO LOCK WESCON KP60	2	3
2	45050	CONTROL MOUNT 2 SPOOL CONTROL	2	2
3	46658	CONTROL CABLE 108 IN WESCON KPAC	2	3
	46713	CONTROL CABLE 156 IN WESCON KPAC	2	3
	47284	CONTROL CABLE 252 IN WESCON KP60	2	3
4	46656	PLATE BULKHEAD CONTROL CABLE KP60	1	1
	46291	CABLE CONN. KIT FOR V20 KPAC	2	3
5		CLEVIS (WITH 3/8" HOLE)	2	3
6		PIN	2	3
7		COTTER PIN	2	3

Item	PN	Description	Qty.	
			2 SPOOL	3 SPOOL
	45798	HANDLE HYDRAULIC KIT KPAC	2	3
8		VALVE HANDLE	2	3
9		LINK	2	3
10		COTTER PIN	6	9
11		LINK PLATE	2	3
12		PIN	2	3
13		HANDLE BRACKET	2	3
14		1/4NCX5/8" HEX SOCKET SCREW	4	6
15	0439	CAP SCR 0.25-20X4.00 HHGR5	3	
	C0916	CAP SCR 0.25-20X6.00 HHGR5		3
16	0333	NUT 0.25-20 HHGR5 NYLOC	3	3
17	46733	SCREW 0.38X1.50 THREAD CUTTING	3	3

# Air Controllers Assembly 1



Item	PN	Description	Qty.
1	C1002	CAP SCR 0.50-13X6.00 HHGR5	3
2	C6106	NUT 0.50-13 HHGR5 NYLOC	1
3		2-Spool Valve Assembly Gresen Shown	1
		3-Spool Valve Assembly Gresen	1
4	45159	AIR ACTUATOR (V42) 1/8-NPT KPAC	1
	48161	TOWER ASM AIR CONTROL	1
6	47986	CONTROL TOWER ASM	1
7	0478	CAP SCR 0.25-20X0.50 HHGR5	12
8	0521	WASHER 0.25 LOCK	12
9	0533	NUT 0.25-20 HH	12
10		Cover	1
11	45040	CAP AIR CONTROL TOWER KPCC (USED WHEN NOT EQUIPPED WITH ITEM 19)	1
12	47467	MOUNT PLATE AIR CONTROL KP60	1
13	47090	SCREW SELF TAP 0.25X0.75 HWHH	4
14	46733	SCREW 0.38X1.50 THREAD CUTTING	4
15	0346	WASHER 0.38 USS FLAT ZINC	4

Item	PN	Description	Qty.
16	0523	WASHER 0.38 LOCK	4
17	0535	NUT 0.38-16 HHGR5	4
18	42399	JOYSTICK DELL D45-1226-99-32	1
19	*47471	PNEUMATIC CONTROLLER	1
20		#10NC x 1/2" Cross Recess Pan Head Machine Screw	4
21		PTO CAP INDICATOR LIGHT	1
22		AIR VALVE	1
23		#10 Flat Washer	4
24		#10 External Tooth Lock Washer	4
25		#10 Hex Nut	4
26		1/8 NPT Male - 1/4" Tube 90° Compression Fitting	1
27	46301	TEE ADAPTER 0.25 AIR QUICK LOCK	1
28		3/8 NPT Male - 1/4" Tube Straight Compression Fitting	1
29		PRESSURE PROTECTION VALVE	1
30		1/4NPT Hex Nipple	1
31		Compression Fitting 1/8NPT Male - 1/4" Tube Straight	1

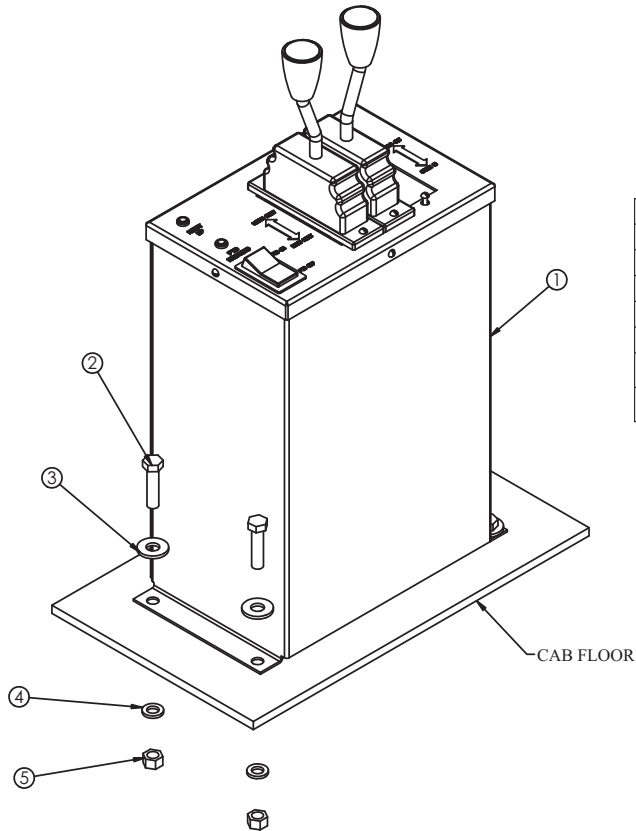
\* USED WITH 3-SPOOL VALVE ASSEMBLY ONLY.



# Air Controllers Assembly 2

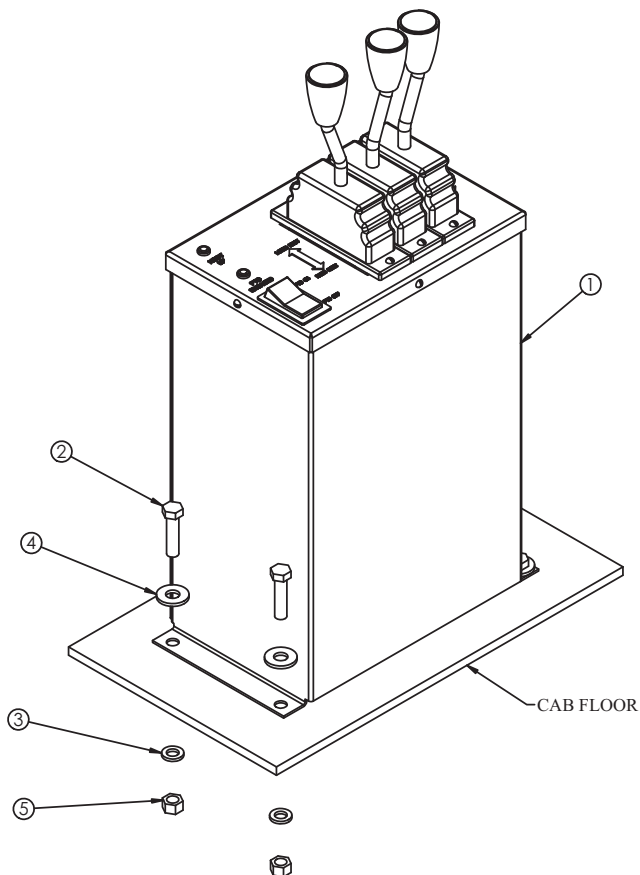
## 2 Section Air PN 45833

ITEM	PART	DESCRIPTION	QTY.
1	45307	CONTROL TOWER ASM 2SECT AIR K-PAC	1
2	0345	CAP SCR 0.38-16X1.50 HHGR5	4
3	0346	WASHER 0.38 USS FLAT ZINC	4
4	0523	WASHER 0.38 LOCK	4
5	0535	NUT 0.38-16 HHGR5	4
6	45687	ELBOW ADAPTER MALE SWIVEL (NOT SHOWN)	4
7	45159	AIR ACTUATOR (V42) 1/8-NPT KPAC (NOT SHOWN)	2

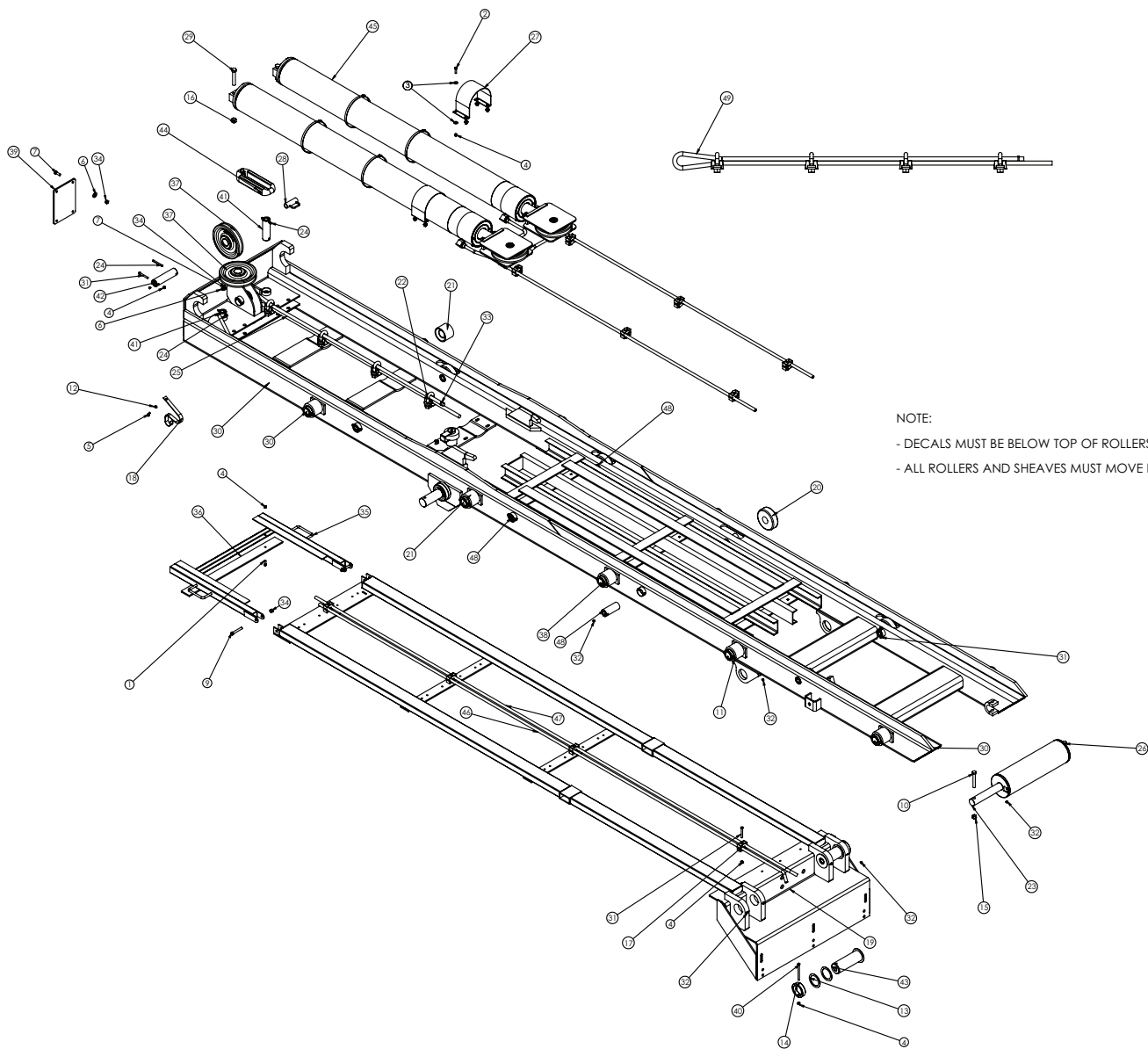


## 3 Section Air PN 46638

ITEM	PART	DESCRIPTION	QTY.
1	45244	CONTROL TOWER ASM 3SECT AIR K-PAC	1
2	0345	CAP SCR 0.38-16X1.50 HHGR5	4
3	0523	WASHER 0.38 LOCK	4
4	0346	WASHER 0.38 USS FLAT ZINC	4
5	0535	NUT 0.38-16 HHGR5	4
6	45159	AIR ACTUATOR (V42) 1/8-NPT KPAC (NOT SHOWN)	3
7	45687	ELBOW ADAPTER MALE SWIVEL (NOT SHOWN)	6



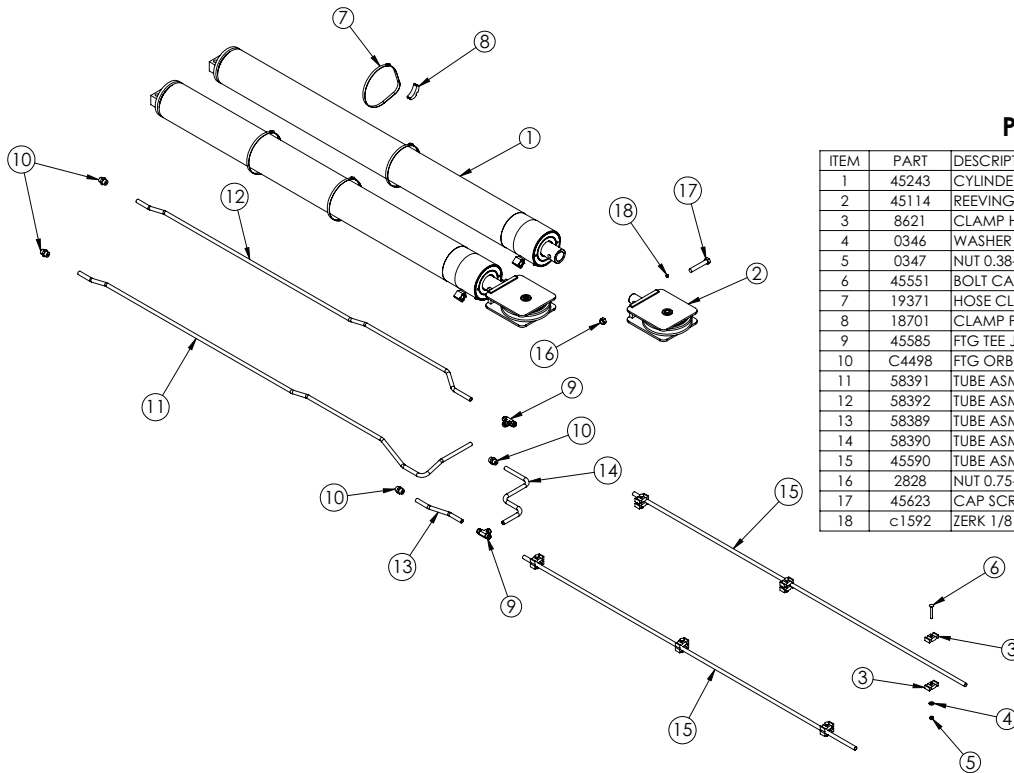
# Main Hoist Assembly



ITEM	PART	DESCRIPTION	QTY.	ITEM	PART	DESCRIPTION	QTY.
1	0335	CAP SCR 0.38-16X1.25 HHGR5	2	25	45556	CABLE ASM 0.88X71 FT 6X37 EXIWRC	1
2	0345	CAP SCR 0.38-16X1.50 HHGR5	4	26	45564	REAR ROLLER ASSEMBLY KP60	1
3	0346	WASHER 0.38 USS FLAT ZINC	12	27	45583	STRAP WLDMT CYLINDER REEVING KP60	2
4	0347	NUT 0.38-16 HHGR5 NYLOC	37	28	45596	HANDLE WLDMT LOCK STRAP KP60	1
5	0351	CAP SCR 0.38-16X1.00 HHGR5	1	29	45623	CAP SCR 0.75-10X4.50 HHGR5	4
6	0352	WASHER 0.50 USS FLAT ZINC	4	30	46631	DUMP KP60 174 IO	1
7	0359	CAP SCR 0.50-13X1.50 HHGR5	4	31	C0949	CAP SCR 0.38-16X3.00 HHGR5	15
8	0427	MACHY WASHER 2.00ID 10GA	10	32	c1592	ZERK 1/8 NPT STRAIGHT	27
9	0505	CAP SCR 0.50-13X3.50 HHGR5	2	33	C4659	HOSE CLAMP #1.6 SS	1
10	0512	CAP SCR 0.63-11X4.50 HHGR5	2	34	C6106	NUT 0.50-13 HHGR5 NYLOC	6
11	0532	CAP SCR 0.38-16X3.75 HHGR5	10	35	45096PC	PROP WLDMNT	1
12	0523	WASHER 0.38 LOCK	1	36	45579PC	FLAT CROSS MEMBER PROP KP60	1
13	1589	MACHY WASHER 3.00ID 14GA	4	37	45139	SHEAVE 10IN X .88 CABLE ASM KP60	3
14	26168PC	COLLAR RETAINING 3.01X4.00X1.00	2	38	45372PC	COLLAR RETAINING 3.00X2.03X.75	10
15	2826	NUT 0.63-11 HHGR5 NYLOC	2	39	45584PC	PLATE COVER FRONT KP60	1
16	2828	NUT 0.75-10 HHGR5 NYLOC	4	40	0578	CAP SCR 0.38-16X5.00 HHGR5	2
17	8621	CLAMP HOSE/TUBE AG-3	8	41	45481ZP	VERTICAL SHEAVE SHAFT KPAC	2
18	42393	SPRING FLAT K PAC	1	42	45138ZP	PIN SHEAVE AND CABLE SHAFT KPAC	1
19	45177	BASE CABLE HOIST SI60	1	43	45560ZP	PIN WLDMT REAR HINGE KP60	2
20	45304	ROLLER 6.00 KP60 INSIDE	8	44	45411	CABLE END 0.88IN CABLE	1
21	45373	ROLLER 4.00 OUTSIDE KP60	10	45	60219	CYLINDER ASM CABLE HOIST (174/182)	1
22	45523	WIRE ROPE CLIP, 1 In. (G-450), CROSBY, 1010239	4	46	45593	TUBE ASM 0.75X176.00 JIC KP6024-462 YZ	1
23	45535	PIN 2.00X27.25 KP60 ROLLER SHAFT	1	47	45592	TUBE ASM 0.75X179.00 JIC KP6024-463 YZ	1
24	45552	ROLL PIN 0.38X3.50	3	48	45358ZP	PIN INSIDE ROLLER W/ZERK KP60	8
				49	45556	CABLE ASM 0.88X71 FT 6X37 EXIWRC (174-182 Models)	1
					45500	CABLE ASM 0.88X81 FT 6X37 EXIWRC (194 Models)	1

# Reeving Cylinder Assembly - PN 60219

174 and 182 Models

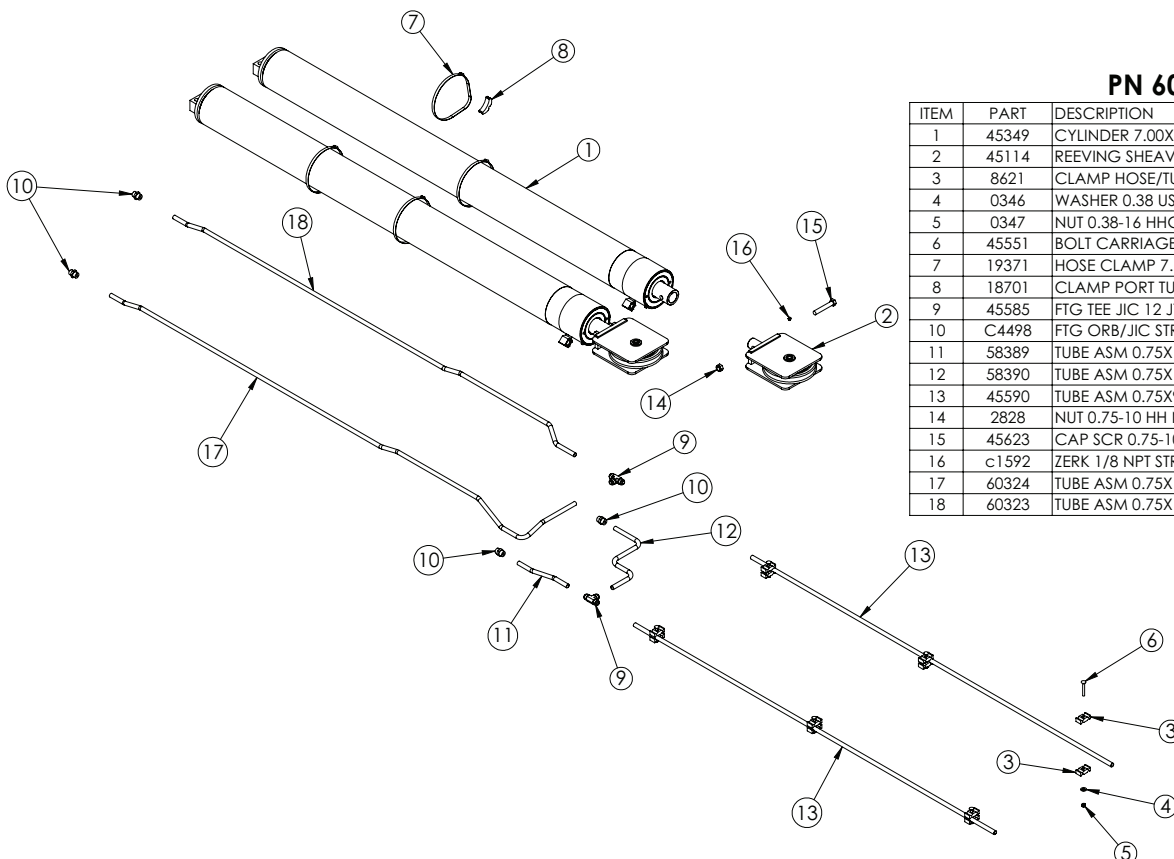


## PN 60219

ITEM	PART	DESCRIPTION	QTY.
1	45243	CYLINDER 7.00X80.00 KPAC	2
2	45114	REEVING SHEAVE WLDMT KP60	2
3	8621	CLAMP HOSE/TUBE AG-3	12
4	0346	WASHER 0.38 USS FLAT ZINC	6
5	0347	NUT 0.38-16 HHGR5 NYLOC	6
6	45551	BOLT CARRIAGE 0.38-16X3.00	6
7	19371	HOSE CLAMP 7.13-10.00 5416K43	4
8	18701	CLAMP PORT TUBE ZR518	4
9	45585	FTG TEE JIC 12 JTX-S	2
10	C4498	FTG ORB/JIC STRT CONNT 12-F5OX-S	4
11	58391	TUBE ASM 0.75X96.82 JIC YZ	1
12	58392	TUBE ASM 0.75X94.94 JIC YZ	1
13	58389	TUBE ASM 0.75X11.50 JIC YZ	1
14	58390	TUBE ASM 0.75X14.06 JIC YZ	1
15	45590	TUBE ASM 0.75X93.00 JIC 24-429 YZ	2
16	2828	NUT 0.75-10 HH NYLOC	2
17	45623	CAP SCR 0.75-10X4.50 HHGR5	2
18	c1592	ZERK 1/8 NPT STRAIGHT	2

# Reeving Cylinder Assembly - PN 60221

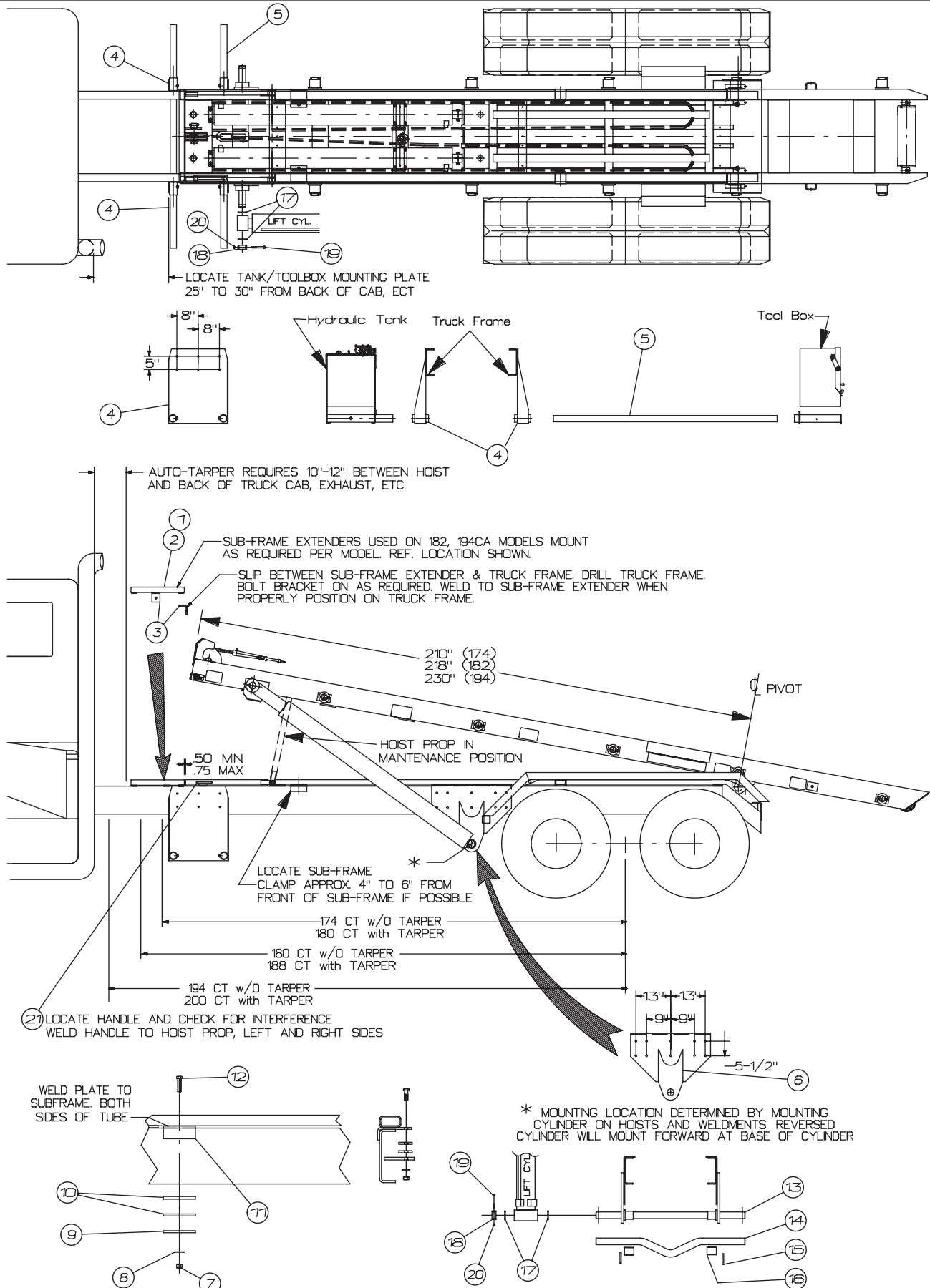
194 Models



## PN 60221

ITEM	PART	DESCRIPTION	QTY.
1	45349	CYLINDER 7.00X80.00 KPAC	2
2	45114	REEVING SHEAVE WLDMT KP60	2
3	8621	CLAMP HOSE/TUBE AG-3	12
4	0346	WASHER 0.38 USS FLAT ZINC	6
5	0347	NUT 0.38-16 HHGR5 NYLOC	6
6	45551	BOLT CARRIAGE 0.38-16X3.00	6
7	19371	HOSE CLAMP 7.13-10.00 5416K43	4
8	18701	CLAMP PORT TUBE ZR518	4
9	45585	FTG TEE JIC 12 JTX-S	2
10	C4498	FTG ORB/JIC STRT CONNT 12-F5OX-S	4
11	58389	TUBE ASM 0.75X11.50 JIC YZ	1
12	58390	TUBE ASM 0.75X14.06 JIC YZ	1
13	45590	TUBE ASM 0.75X93.00 JIC 24-429 YZ	2
14	2828	NUT 0.75-10 HH NYLOC	2
15	45623	CAP SCR 0.75-10X4.50 HHGR5	2
16	c1592	ZERK 1/8 NPT STRAIGHT	2
17	60324	TUBE ASM 0.75X106.81 JIC YZ	1
18	60323	TUBE ASM 0.75X104.94 JIC YZ	1

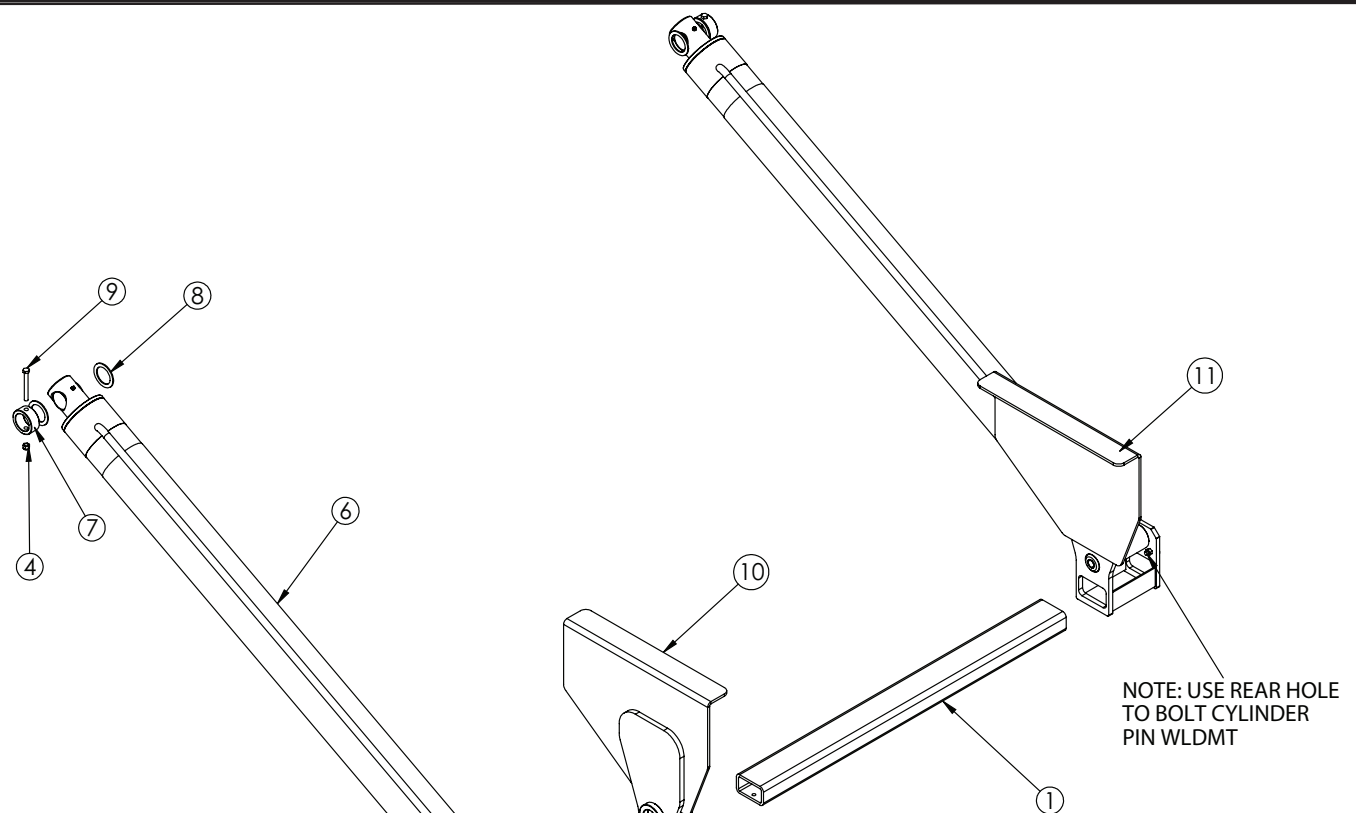
# Chassis Mounted Parts



# Chassis Mounted Parts

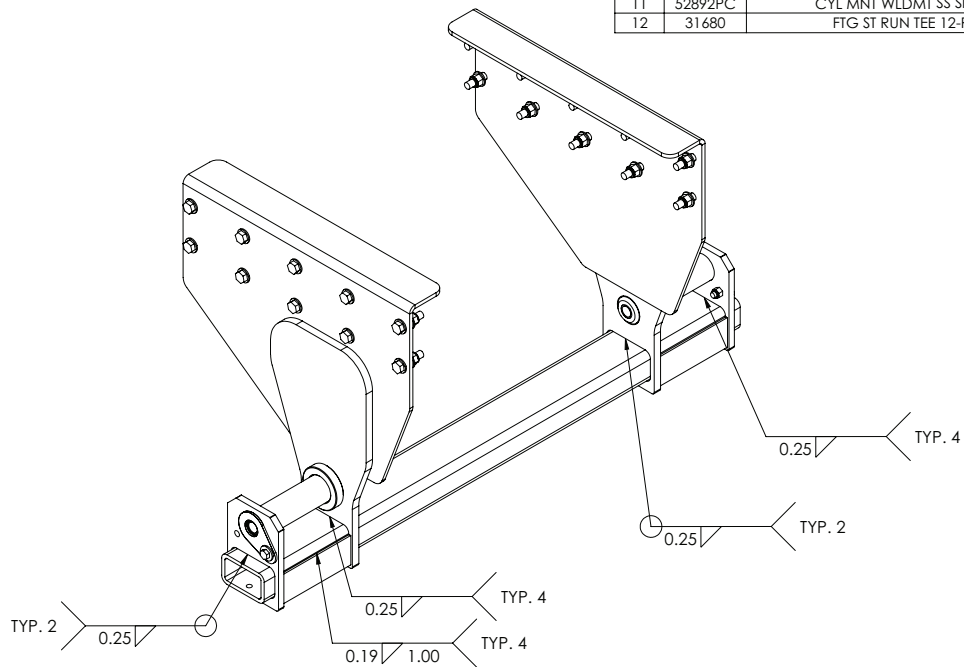
Item	PN	Description	Qty.
1	45054	SUB-FRAME FRONT WELDMENT	1
2	45059	SUB-FRAME FRONT WELDMENT	1
3	46134	PLATE SUBFRAME EXTENDER CLAMP	2
4	46062	MOUNTING BRACKET RSRVR SI60	2
5	46063	TUBE RSRVR MOUNTING SI60	2
6	45600	MOUNT BRKT TRUCK FRAME LUG SI60	2
7	47089	NUT 0.63-18 HHGR5 NYLOC	2
8	C1038	WASHER 0.63 USS FLAT ZINC	2
9	45762	PLATE SUBFRAME CLAMP BTM SI60	2
10	45761	PLATE SUBFRAME SHIM SI60	4
11	45760	PLATE SUBFRAME CLAMP SI60	2
12	47088	CAP SCR 0.63-18X2.50 HHGR5	2
13	47531	PIN PIVOT	1
14	45144	PIN 2.50 KP60 DROP SHAFT	1
15	45758	FLAT 0.50X4.00X0.75	4
16	45757	TUBE 3.00X3.00X.19WX3.50	2
17	47852	WASHER FLAT 2.56IDX3.25ODX0.25 THCK	8
18	45756	COLLAR 2.51X3.25X1.50 W/HOLE	4
19	0507	CAP SCR 0.50-13X4.50 HHGR5	4
20	C6106	NUT 0.50-13 HHGR5 NYLOC	4
21	45597	HANDLE PROP SI60	2

# Mounting Kit (Forward Mount) - PN 55261

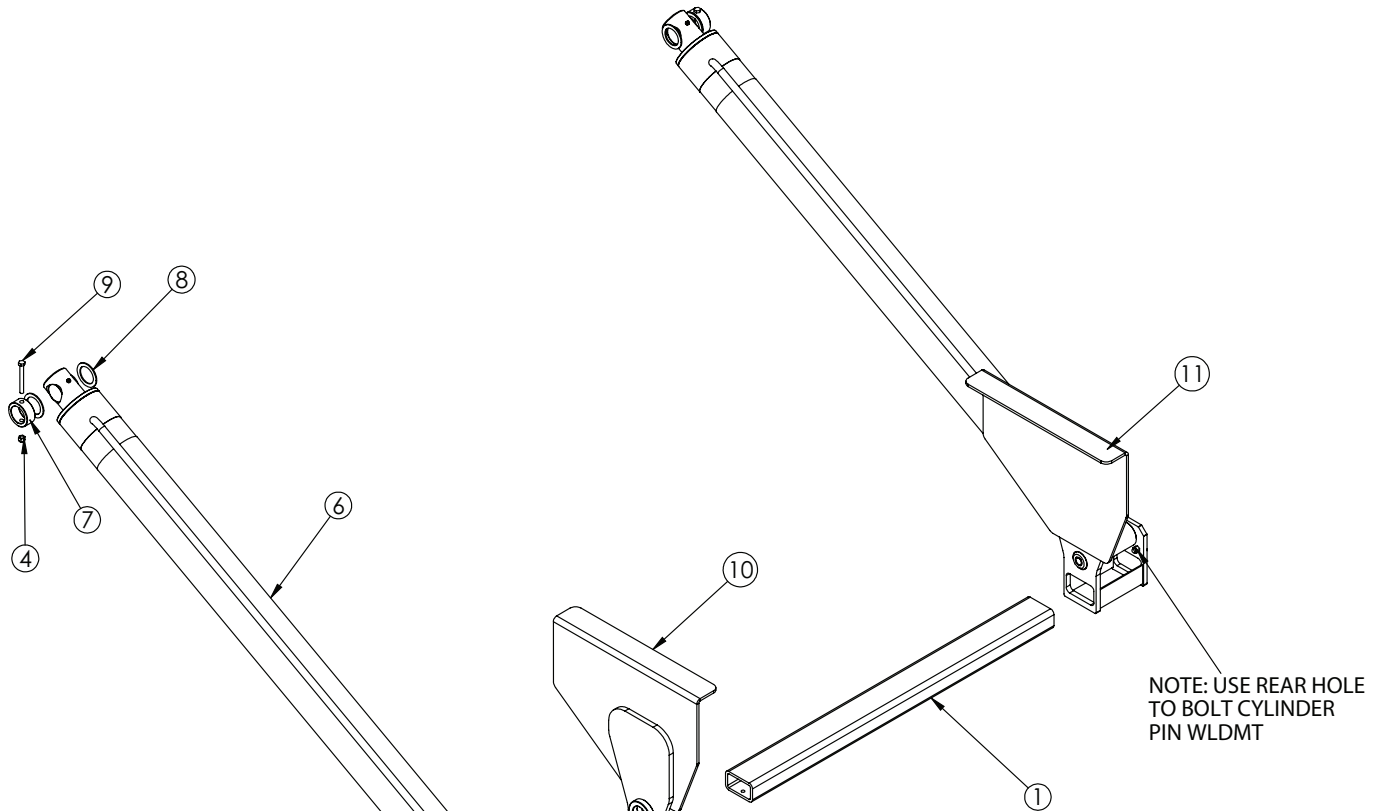


## PN 55261

ITEM	PART	DESCRIPTION	QTY.
1	49997	TUBE 5.00X3.00X0.38WX56.00	1
2	49995ZP	PIN WLDMT CYL MNT CABLE75	2
3	0500	CAP SCR 0.50-13X1.75 HHGR5	2
4	C6106	NUT 0.50-13 HHGR5 NYLOC	4
5	0352	WASHER 0.50 USS FLAT ZINC	2
6	55262	CYLINDER ASM 6.00X72.00 LIFT CABLE75 MNT	2
7	45756PC	COLLAR 2.51X3.50X1.50 W/HOLE	2
8	1593	MACHY WASHER 2.50ID 10GA	4
9	0507	CAP SCR 0.50-13X4.50 HHGR5	2
10	52889PC	CYL MNT WLDMT SS SI75 HP OFFSET	1
11	52892PC	CYL MNT WLDMT SS SI75 HP	1
12	31680	FTG ST RUN TEE 12-R6X	2

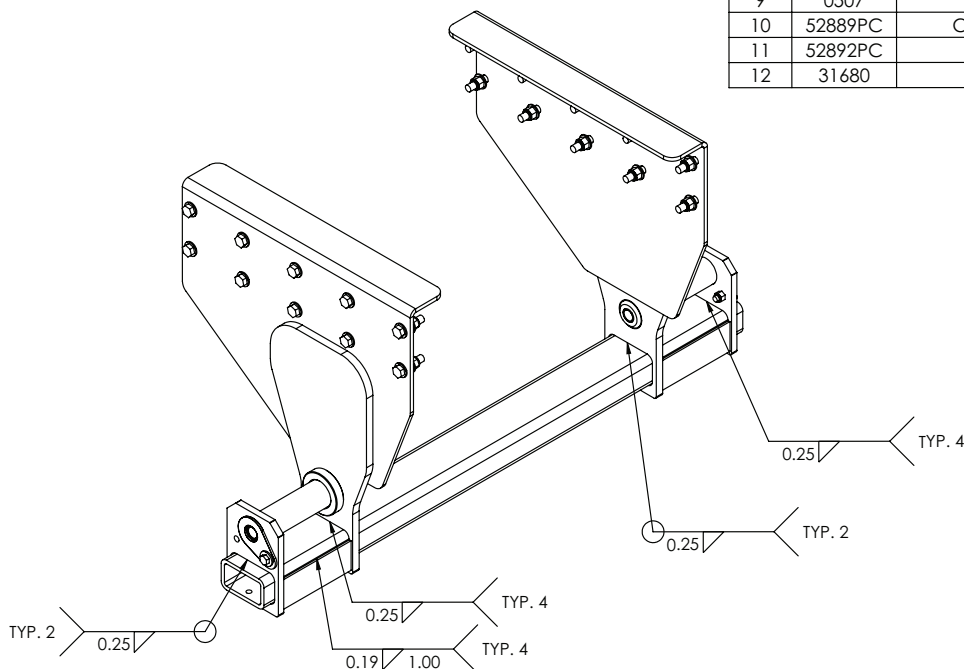


# Mounting Kit (Reverse Mount) - PN 56094

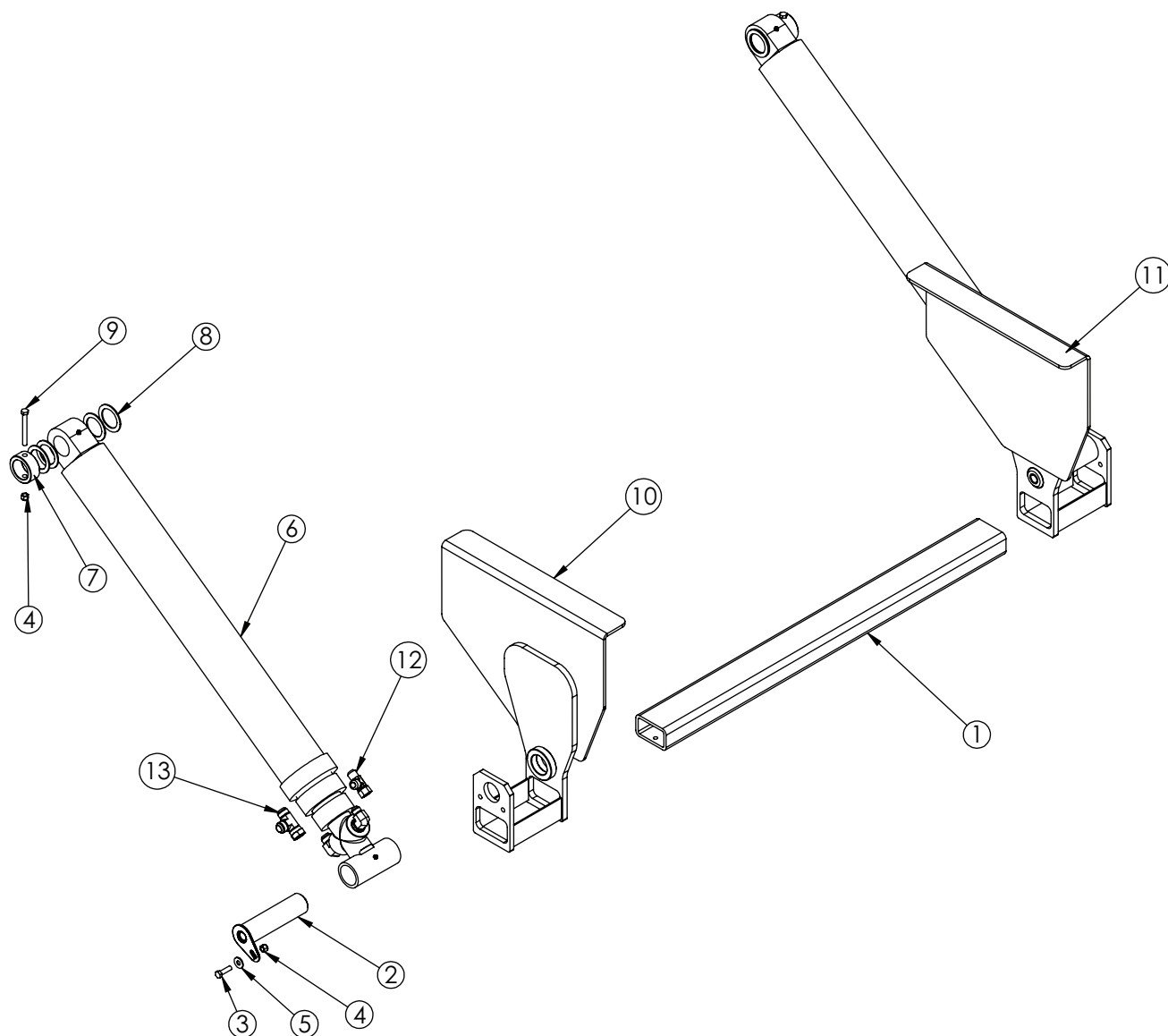


## PN 56094

ITEM	PART	DESCRIPTION	QTY.
1	49997	TUBE 5.00X3.00X0.38WX56.00	1
2	49995ZP	PIN WLDMT CYL MNT CABLE75	2
3	0500	CAP SCR 0.50-13X1.75 HHGR5	2
4	C6106	NUT 0.50-13 HHGR5 NYLOC	4
5	0352	WASHER 0.50 USS FLAT ZINC	2
6	55262	CYLINDER ASM 6.00X72.00 LIFT CABLE75 MNT	2
7	45756PC	COLLAR 2.51X3.50X1.50 W/HOLE	2
8	1593	MACHY WASHER 2.50ID 10GA	4
9	0507	CAP SCR 0.50-13X4.50 HHGR5	2
10	52889PC	CYL MNT WLDMT SS SI75 HP OFFSET	1
11	52892PC	CYL MNT WLDMT SS SI75 HP	1
12	31680	FTG ST RUN TEE 12-R6X	2



## Mounting Kit (Telescopic) - PN 55265

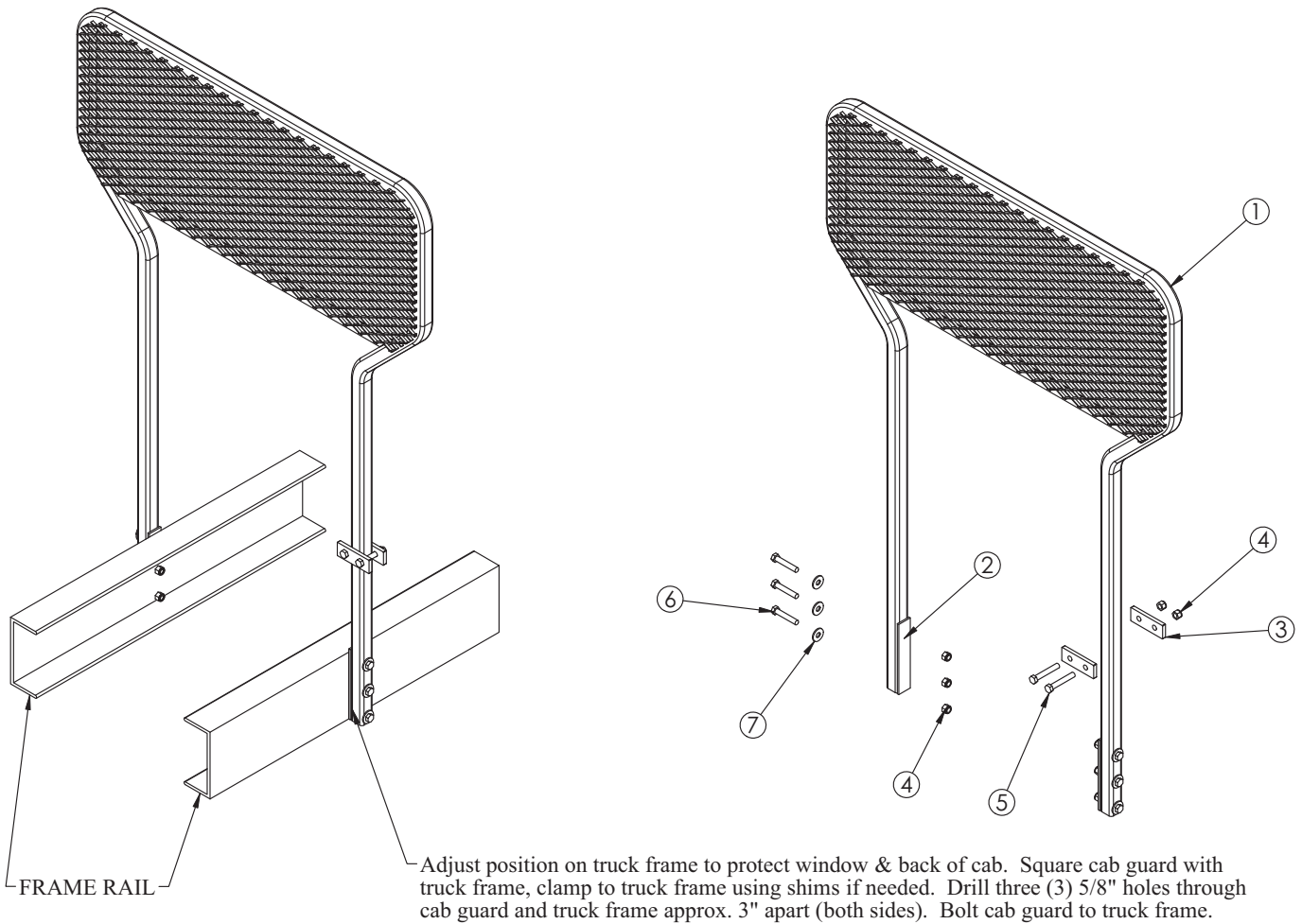


### PN 55265

ITEM	PART	DESCRIPTION	QTY.
1	49997	TUBE 5.00X3.00X0.38WX56.00	1
2	49995ZP	PIN WLDMT CYL MNT CABLE75	2
3	0500	CAP SCR 0.50-13X1.75 HHGR5	2
4	C6106	NUT 0.50-13 HHGR5 NYLOC	4
5	0352	WASHER 0.50 USS FLAT ZINC	2
6	51078	CYLINDER ASM 5.50X185.75 TELO KPAC	2
7	45756PC	COLLAR 2.51X3.50X1.50 W/HOLE	2
8	1593	MACHY WASHER 2.50ID 10GA	8
9	0507	CAP SCR 0.50-13X4.50 HHGR5	2
10	52889PC	CYL MNT WLDMT SS SI75 HP OFFSET	1
11	52892PC	CYL MNT WLDMT SS SI75 HP	1
12	31680	FTG ST RUN TEE 12-R6X	1
13	55320	FTG ST RUN TEE 16-R6X	1



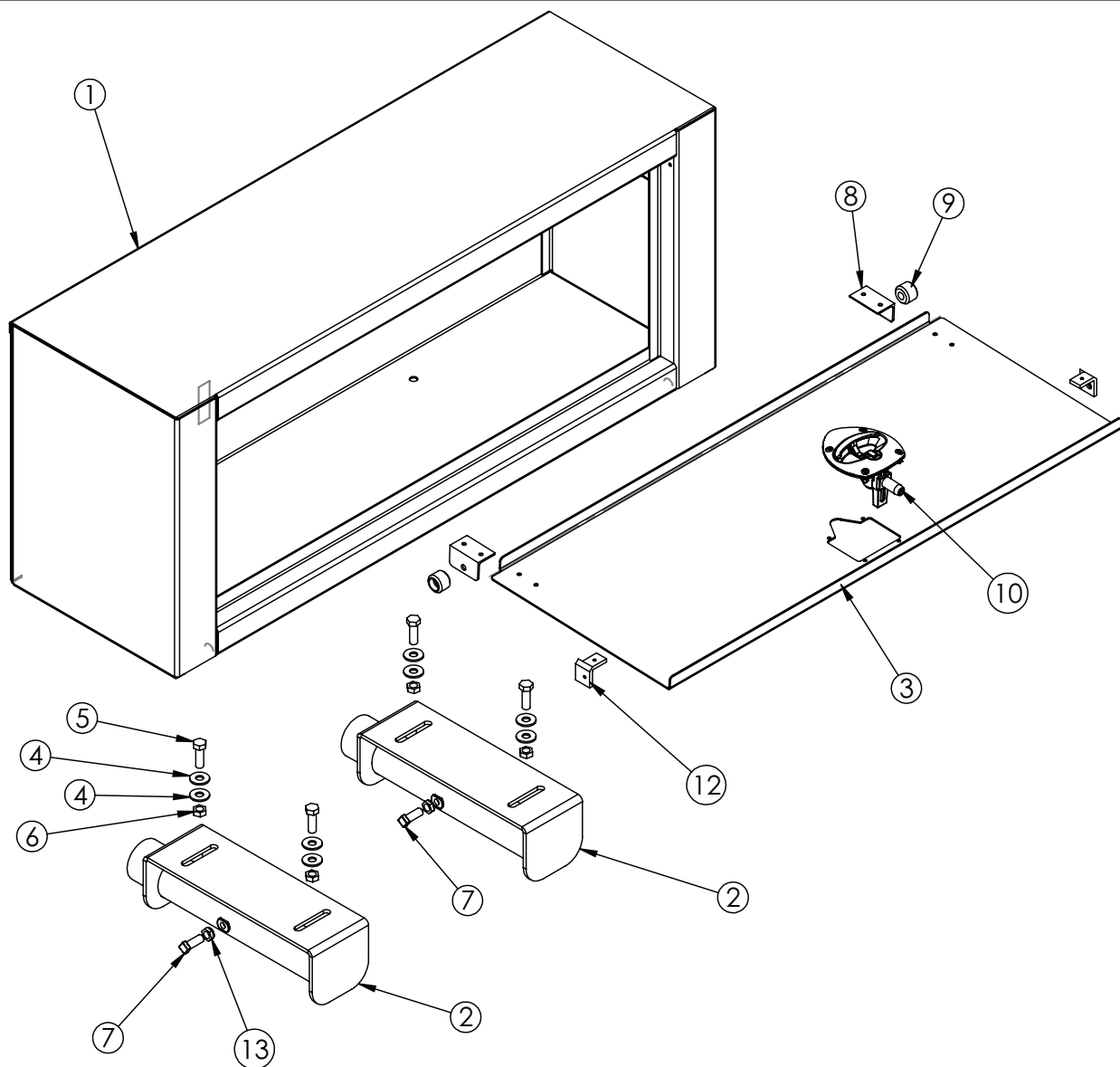
# Cab Guard - PN 47263



## PN 47263

ITEM	PART	DESCRIPTION	QTY.
1	47262	CAB GUARD WLDMT KP60	1
2	47265	FLAT 0.25X2.00X10.50	2
3	47264	CLAMP BAR CAB GUARD KP60	2
4	2826	NUT 0.63-11 HHGR5 NYLOC	8
5	2827	CAP SCR 0.63-11X4.00 HHGR5	2
6	C0964	CAP SCR 0.63-11X3.50 HHGR5	6
7	C1038	WASHER 0.63 USS FLAT ZINC	6

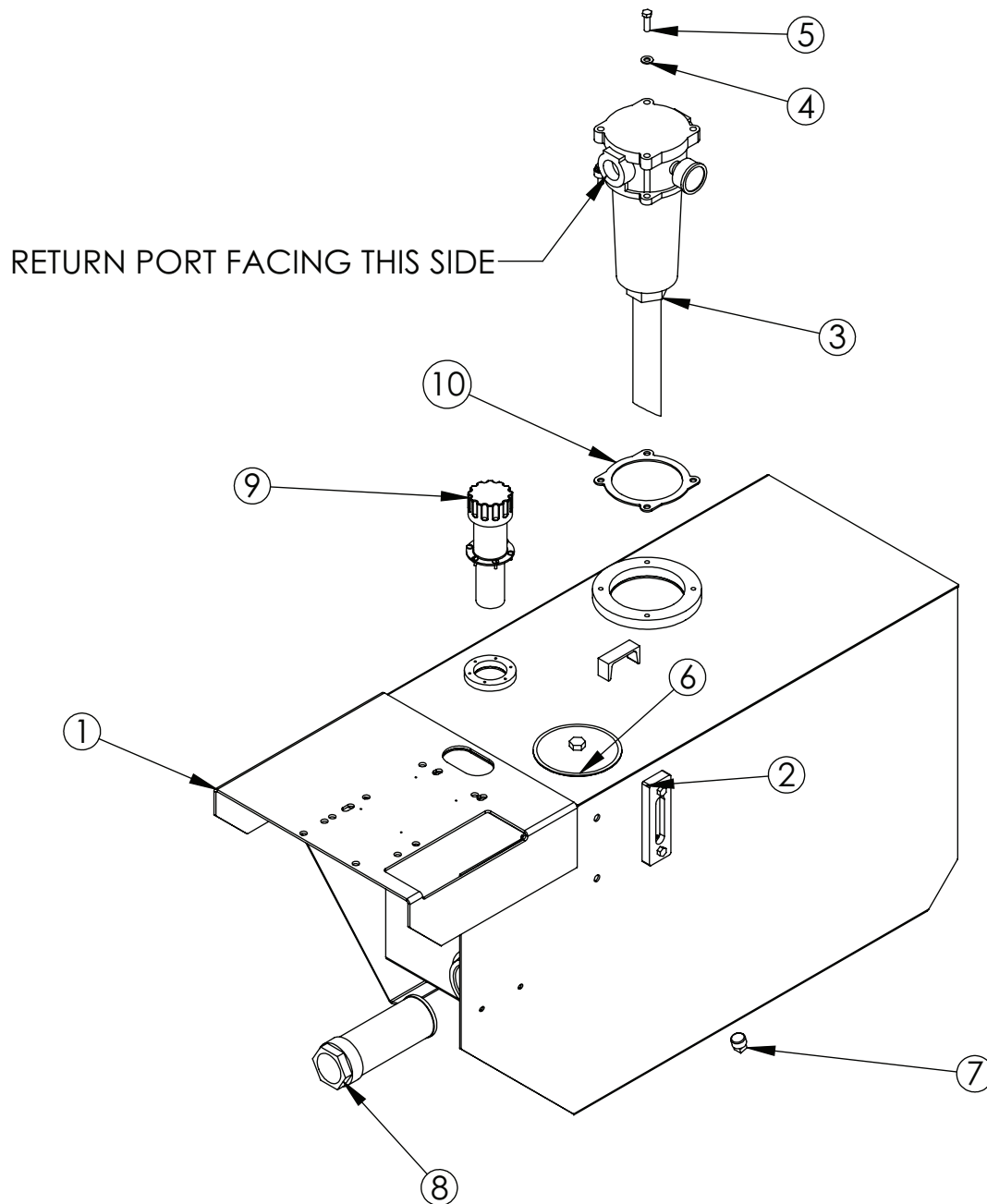
## Under Body Tool Box - PN 46579



### PN 46579

ITEM	PART	DESCRIPTION	QTY.
1	46580	UBTB WLDMT OH 20X48X15	1
2	46578PC	UBTB MNT WLDMT 15.00D-KPAC	2
3	46577	DOOR OH 16.19X40.06 VECTOR SPT-KPAC	1
4	0352	WASHER 0.50 USS FLAT ZINC	8
5	0359	CAP SCR 0.50-13X1.50 HHGR5	4
6	C6106	NUT 0.50-13 HHGR5 NYLOC	4
7	46590	CAP SCR 0.50X1.50 SQ HD CP SS	2
8	22045	BRKT ROLLER MOUNT OH DOOR	2
9	4110	ROLLER OH DOOR UHMW	2
10	23763	LATCH ASM VECTOR SGL PT	1
11	4183	ANGLE UHMW RH 1.50X1.50X0.25X1.25	1
12	4167	ANGLE UHMW LH 1.50X1.50X0.25X1.25	1
13	16333	NUT 0.50-13 HH JAM NYLOC	2

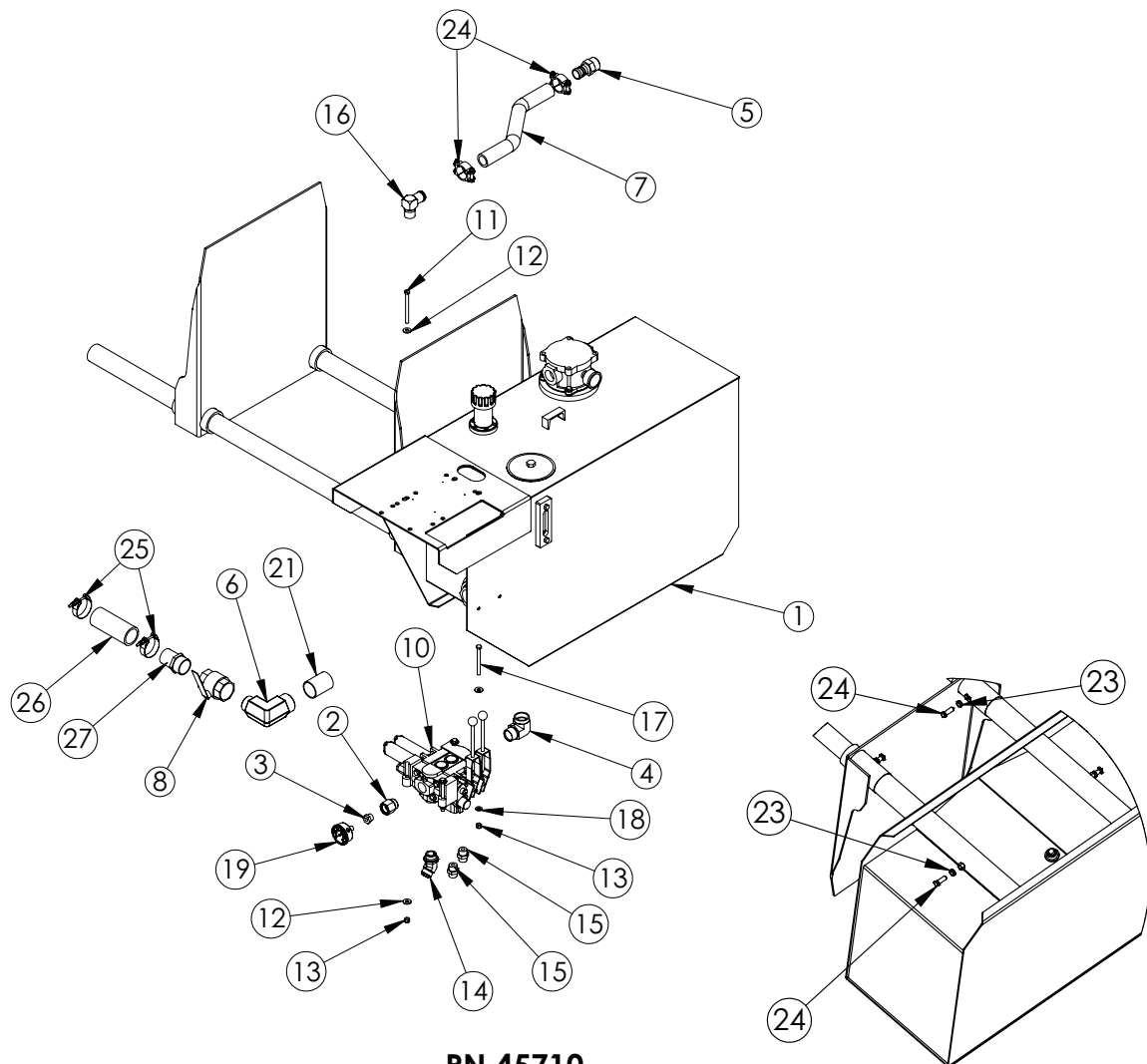
# Reservoir Assembly - PN 46133



## PN 46133

ITEM	PART	DESCRIPTION	QTY.
1	46130	RSRVR WLDMT 60GAL KP60	1
2	15463	THERMO SIGHT GAUGE	1
3	45075	FILTER K-PAC TANK TOP	1
4	C6353	WASHER 0.38 SAE FLAT YELLOW GR8	4
5	0335	CAP SCR 0.38-16X1.25 HHGR5	4
6	15464	TANK COVER	1
7	C4845	PLUG 0.75 NPT SQ HD BLK	1
8	C6327	FILTER STRAINER 35GAL TF-2030	1
9	57739	CAP FILL ASM W/3" NECK 1PSI	1
10	58396	GASKET RG-11 TANK TOP FILTER	1

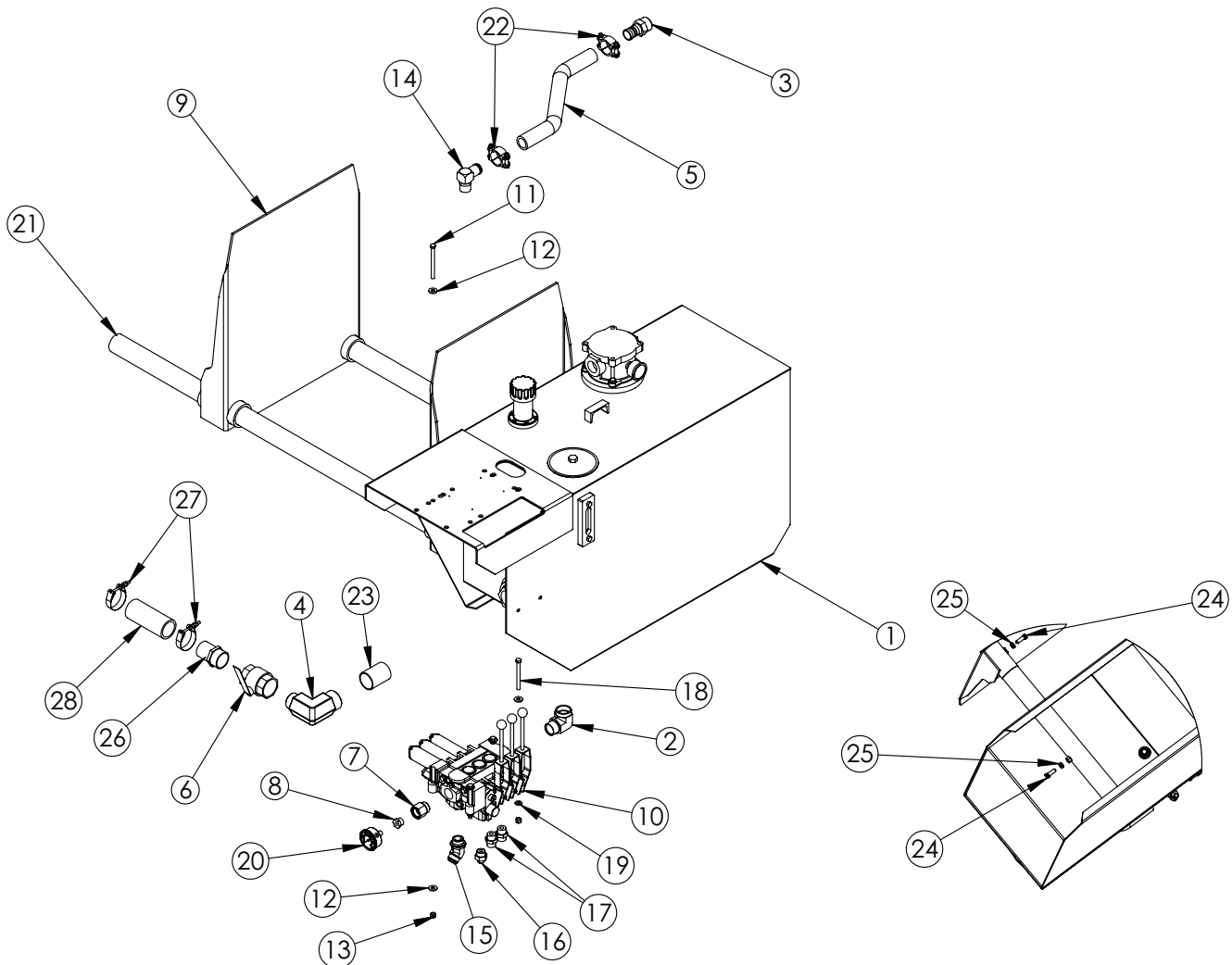
## 2 Section Valve Bank Reservoir - PN 45710



**PN 45710**

ITEM	PART	DESCRIPTION	QTY
1	46133	RSRVR ASM 60GAL KP60	1
2	D1306	FTG ADAPT MSTR/FSTR 16-12 F5OG5	1
3	30541	FTG ADAPT 12-1/4 F5OG	1
4	9758	FTG ST TH-F PIPE EL 90 6805-20-20	1
5	C2282	FTG 1.25 NPT TO 1.25 BARB	1
6	D0652	ST EL 2.00 90 DEG STL	1
7	45831	HOSE 1.25X19.00 KP60	1
8	C4750	VALVE BALL 2.00	1
10	59841	VB 2-SECT VA20 KIT	1
11	C0954	CAP SCR 0.38-16X4.50 HHGR5	3
12	0346	WASHER 0.38 USS FLAT ZINC	7
13	0347	NUT 0.38-16 HHGR5 NYLOC	4
14	45802	FTG ADAPT MJIC/MORING 16-16 45 DEG	1
15	C4498	FTG ORB/JIC STRT CONNT 12-F5OX-S	4
16	8617	FTG HOSE BARB 1.25 90 DEG MNPT	1
17	C0953	CAP SCR 0.38-16X4.00 HHGR5	1
18	C6353	WASHER 0.38 SAE FLAT YELLOW GR8	1
19	6397	GAUGE OIL LF 2.5 0-5000 CBM	1
20	46063PC	TUBE RSRVR MOUNTING KP60	2
21	7285	NIPPLE 2.00X3.00 BLK	1
22	C1123	HOSE CLAMP 88 DB-20	2
23	16333	NUT 0.50-13 HH JAM NYLOC	6
24	46590	CAP SCR 0.50X1.50 SQ HD CP SS	6
25	c4819	HOSE CLAMP 2.00	2
26	17766	HOSE SUCT 2.00 10FT	1
27	C4730	FTG HOSE BARB 2.00	1

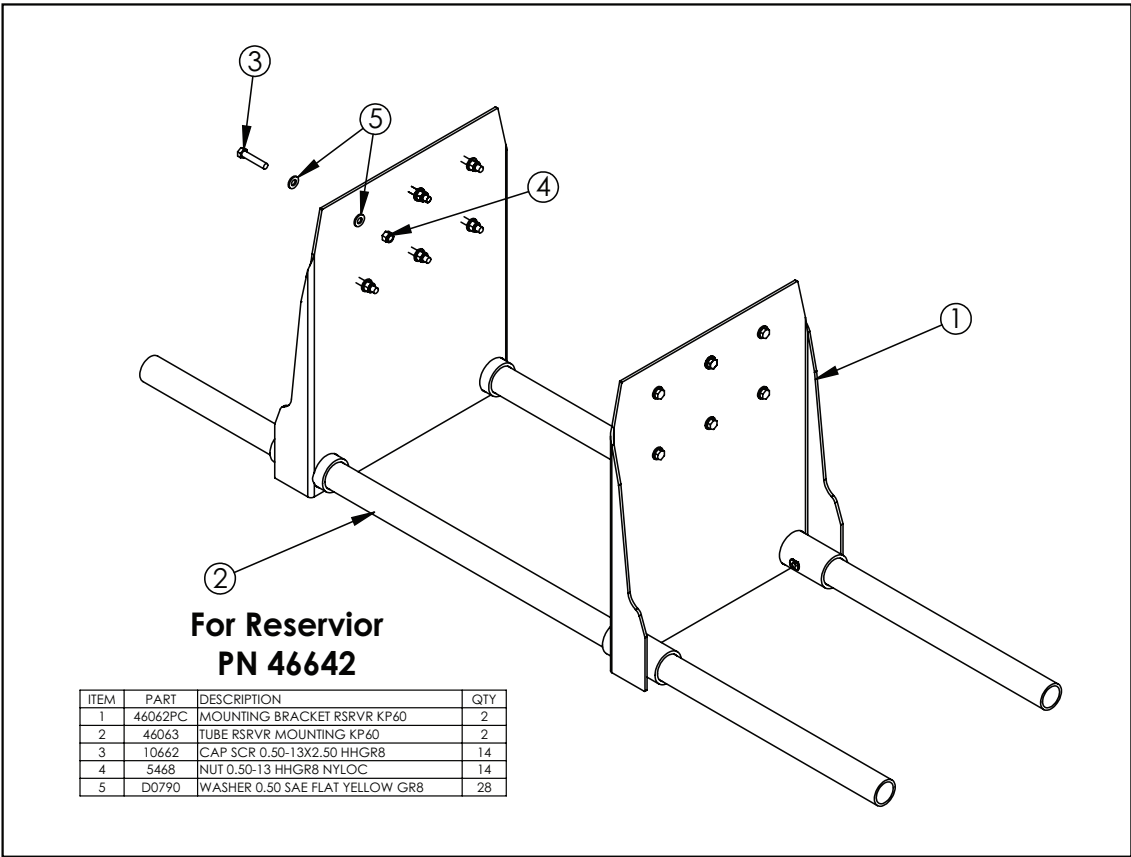
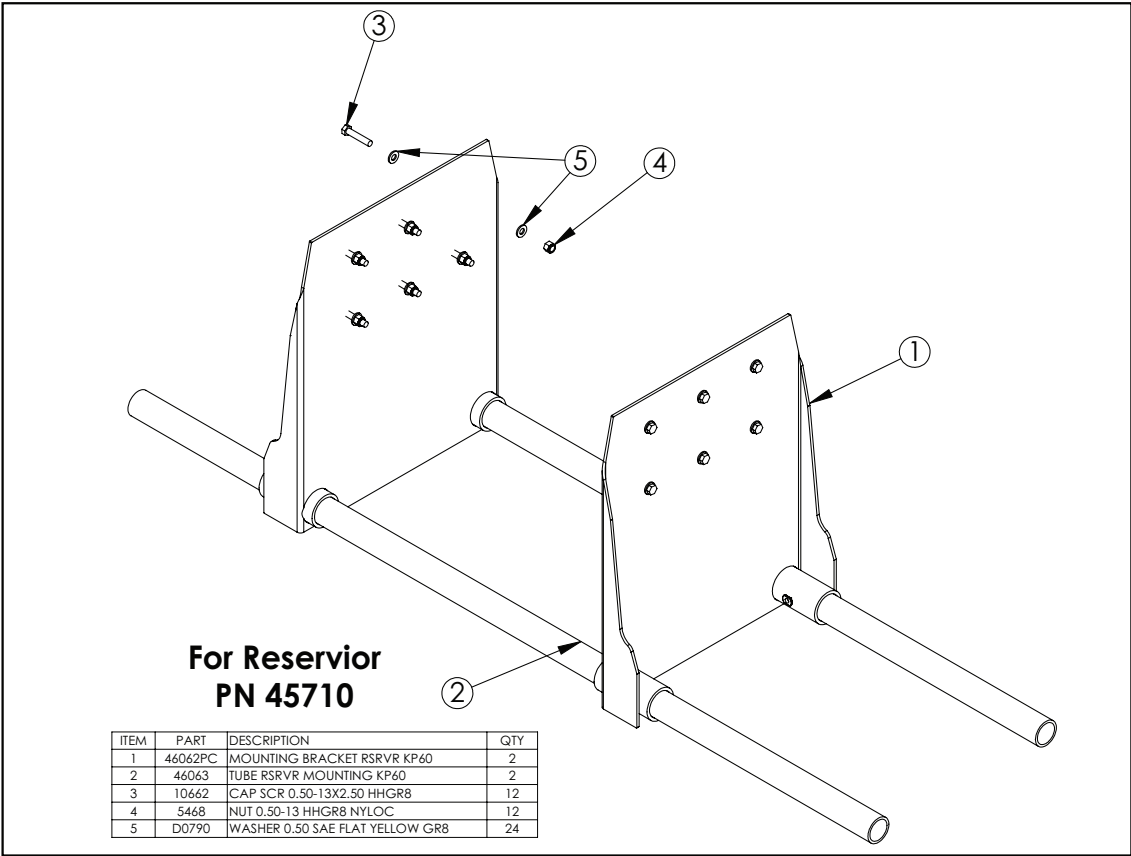
# 3 Section Valve Bank Reservoir - PN 46642



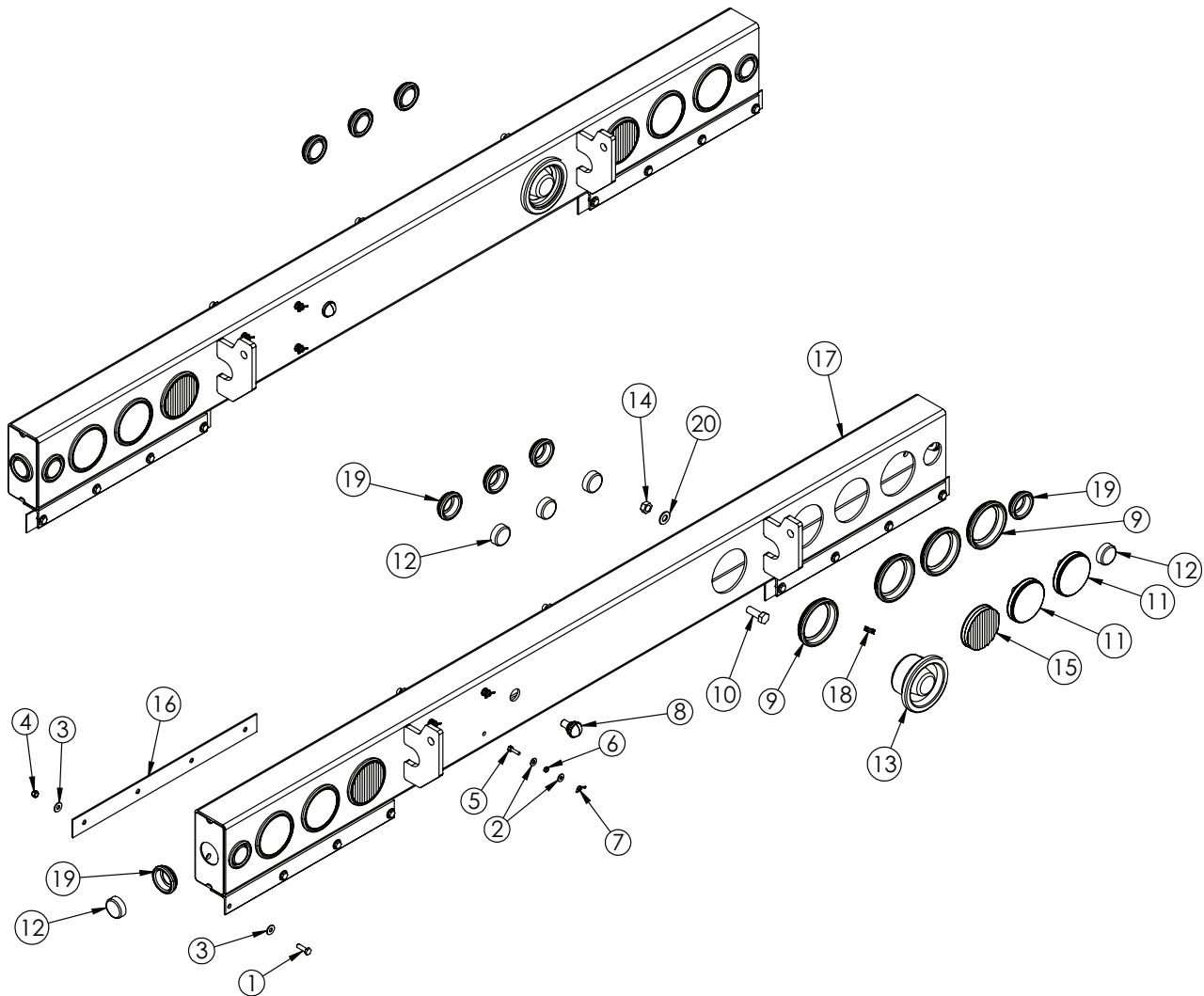
## PN 46642

ITEM	PART	DESCRIPTION	QTY
1	46133	RSRVR ASM 60GAL KP60	1
2	9758	FTG ST TH-F PIPE EL 90 6805-20-20	1
3	C2282	FTG 1.25 NPT TO 1.25 BARB	1
4	D0652	ST EL 2.00 90 DEG STL	1
5	45831	HOSE 1.25X19.00 KP60	1
6	C4750	VALVE BALL 2.00	1
7	D1306	FTG ADAPT MSTR/FSTR 16-12 F5OG5	1
8	30541	FTG ADAPT 12-1/4 F5OG	1
10	59843	VB 3-SECT VA20 KIT	1
11	C0954	CAP SCR 0.38-16X4.50 HHGR5	3
12	0346	WASHER 0.38 USS FLAT ZINC	7
13	0347	NUT 0.38-16 HHGR5 NYLOC	4
14	8617	FTG HOSE BARB 1.25 90 DEG MNPT	1
15	45802	FTG ADAPT MJIC/MORING 16-16 45 DEG	1
16	D1189	FTG ST TH CONNECT JIC 8-12 F5OX	2
17	C4498	FTG ORB/JIC STRT CONNT 12-F5OX-S	4
18	C0953	CAP SCR 0.38-16X4.00 HHGR5	1
19	C6353	WASHER 0.38 SAE FLAT YELLOW GR8	1
20	6397	GAUGE OIL LF 2.5 0-5000 CBM	1
21	46063PC	TUBE RSRVR MOUNTING KP60	2
22	C1123	HOSE CLAMP 88 DB-20	2
23	7285	NIPPLE 2.00X3.00 BLK	1
24	46590	CAP SCR 0.50X1.50 SQ HD CP SS	6
25	16333	NUT 0.50-13 HH JAM NYLOC	6
26	C4730	FTG HOSE BARB 2.00	1
27	c4819	HOSE CLAMP 2.00	2
28	17766	HOSE SUCT 2.00 10FT	1

# Reservoir Mounting Bracket for PN 45710



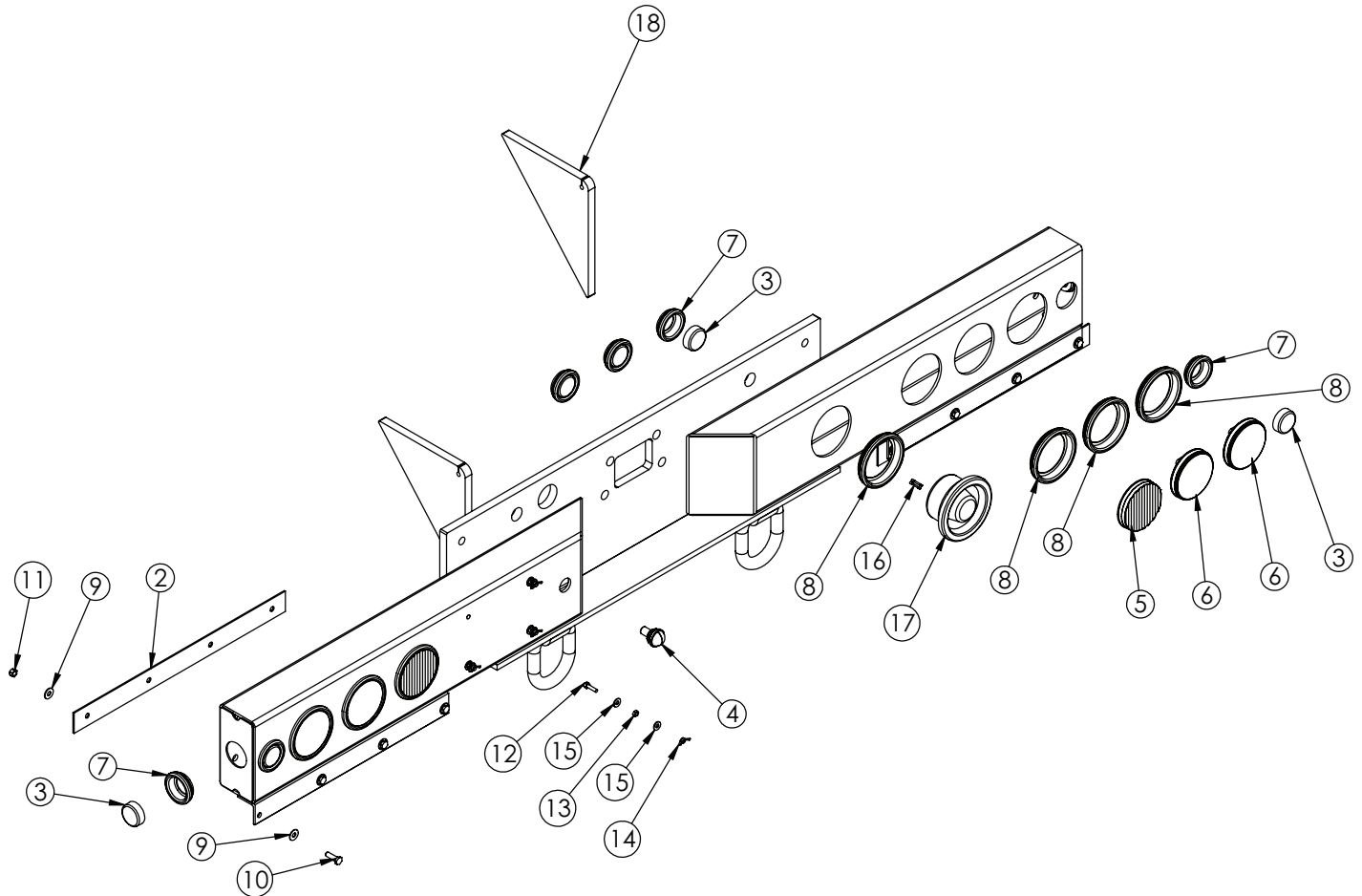
# Standard Lighted Bumper - PN 45887



## PN 45887

ITEM	PART	DESCRIPTION	QTY.
1	0335	CAP SCR 0.38-16X1.25 HHGR5	8
2	0340	WASHER 0.25 FLAT	8
3	0346	WASHER 0.38 FLAT	16
4	0347	NUT 0.38-16 HH NYLOC	8
5	0480	CAP SCR 0.25-20X1.00 HHGR5	4
6	0533	NUT 0.25-20 HH	4
7	0654	NUT 0.25-20 WING	4
8	2320	LICENSE PLATE LIGHT ROUND 430 W	1
9	10334	GROMMET 4.00 ROUND LAMP (PETERSON)	7
10	11693	CAP SCR 0.63-11X1.75 HHGR8	6
11	13143	LIGHT STOP/TURN/TAIL 4 RND LED	4
12	13145	LIGHT CLEARANCE RED RND 2 LED	7
13	18742	BACKUP ALARM ACORN 97 DECIBAL	1
14	24868	NUT 0.63-11 HHGR8 NYLOCK ZY	6
15	27626	LIGHT BACKUP LED 62391	2
16	45039PC	PLATE MUD FLAP BACKING 43"FENDER KP	2
17	45812	BUMPER WLDMT STANDARD KP60	1
18	C0073	TERML 16-14 BLUE BUTT WATER TIGHT	2
19	C4862	GROMMET FOR 2 CLEARANCE 30700	7
20	C5902	WASHER 0.63 SAE FLAT YELLOW GR8	12

## Pintle Bumper - PN 46818

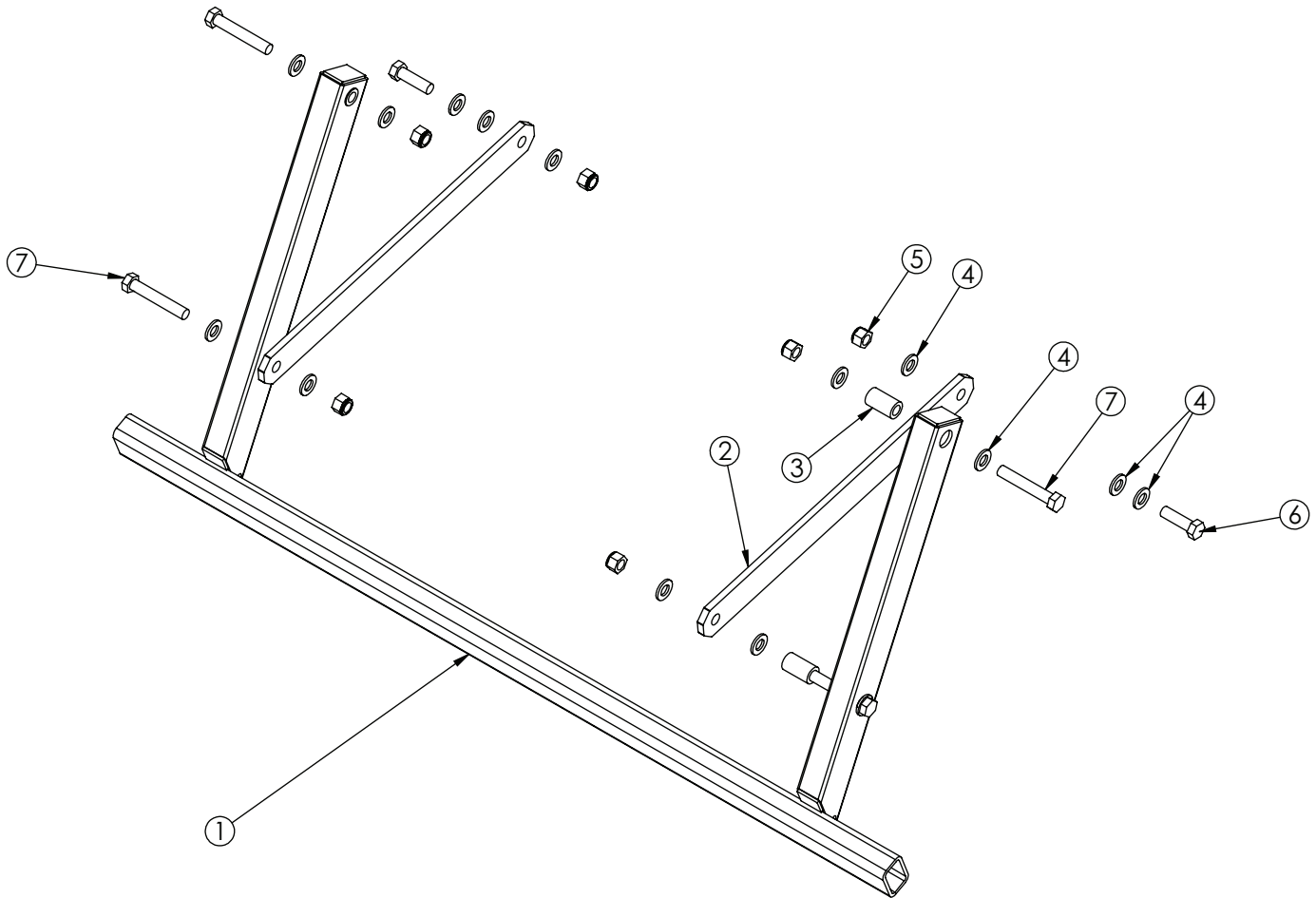


### PN 46818

ITEM	PART	DESCRIPTION	QTY.
1	62293	BUMPER WLDMT 90K PINTLE TARTER	1
2	45039PC	PLATE MUD FLAP BACKING 43\"FENDER KP	2
3	13145	LIGHT CLEARANCE RED RND 2 LED	7
4	2320	LICENSE PLATE LIGHT ROUND 430 W	1
5	27626	LIGHT BACKUP LED 62391	2
6	13143	LIGHT STOP/TURN/TAIL 4 RND LED	4
7	C4862	GROMMET FOR 2 CLEARANCE 30700	7
8	10334	GROMMET 4.00 ROUND LAMP (PETERSON)	7
9	0346	WASHER 0.38 FLAT	16
10	0335	CAP SCR 0.38-16X1.25 HHGR5	8
11	0347	NUT 0.38-16 HH NYLOC	8
12	0480	CAP SCR 0.25-20X1.00 HHGR5	4
13	0533	NUT 0.25-20 HH	4
14	0654	NUT 0.25-20 WING	4
15	0340	WASHER 0.25 FLAT	8
16	C0073	TERML 16-14 BLUE BUTT WATER TIGHT	2
17	18742	BACKUP ALARM ACORN 97 DECIBAL	1
18	46822	GUSSET 11.50X10.00X.75 PINTLE BUMPER	2



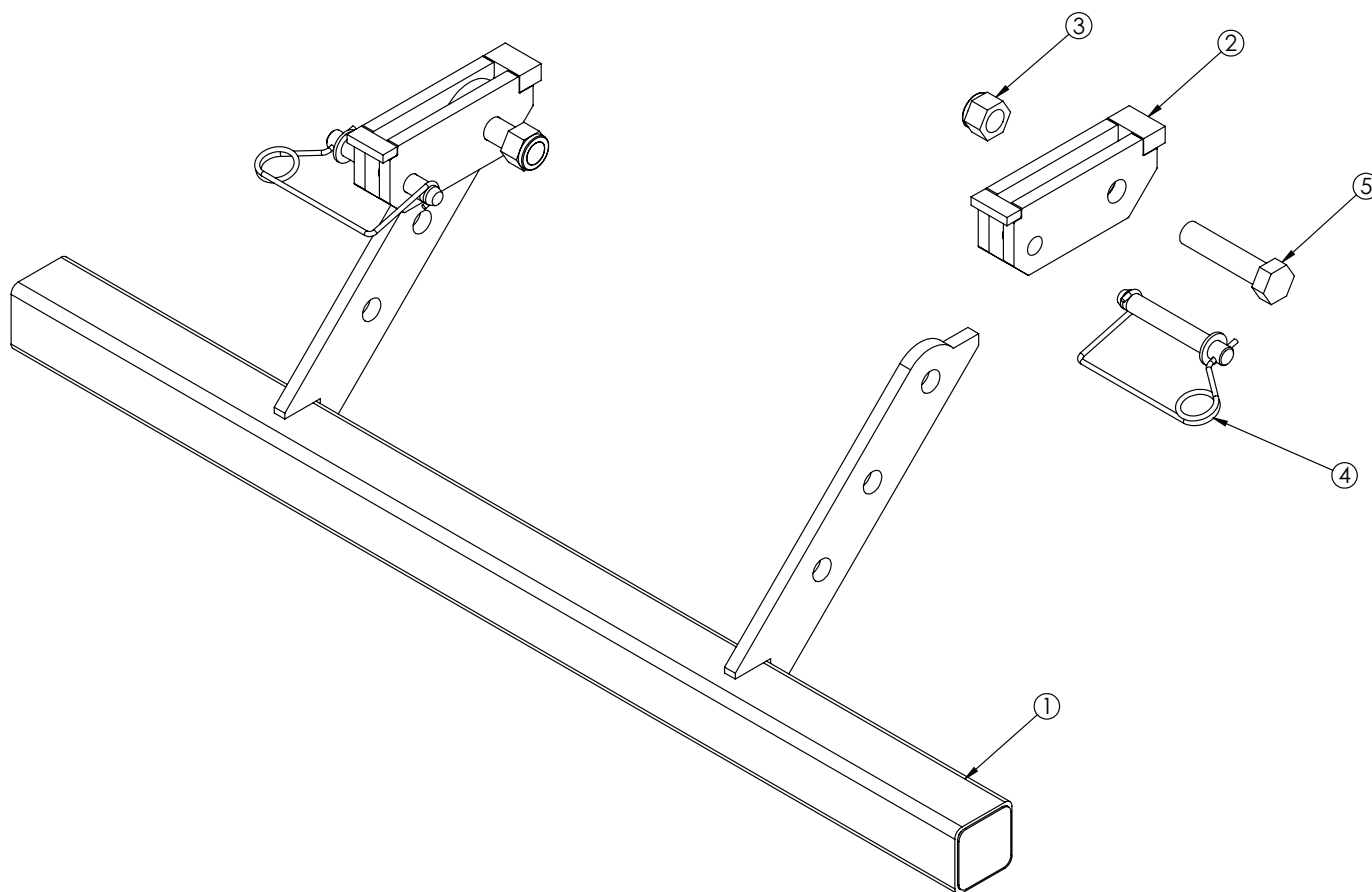
# ICC Wide Bumper - PN 53397



## PN 53397

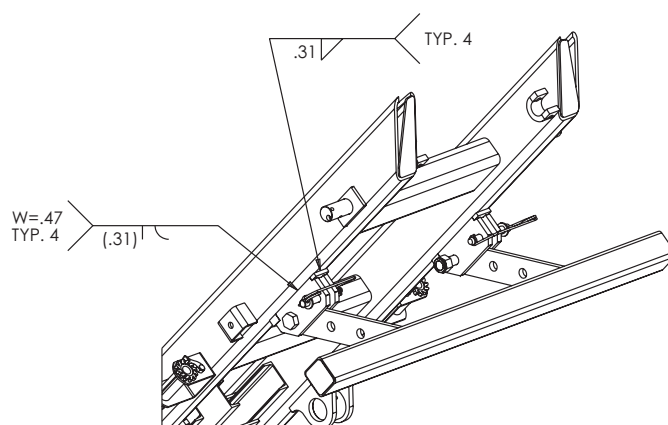
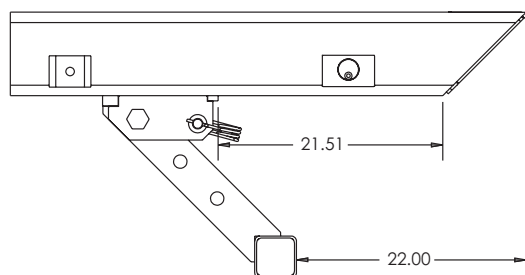
ITEM	PART	DESCRIPTION	QTY.
1	53398	BUMPER WLDMT ICC WIDE	1
2	45813PC	PLATE LINK ICC BUMPER	2
3	45815	SPACER 1.25ODX0.75IDX2.16	4
4	C6219	WASHER 0.75 SAE FLAT YELLOW GR8	16
5	C0538	NUT 0.75-10 HHGR8 NYLOC	6
6	58681	CAP SCR 0.75-10X2.50 HHGR8	2
7	5841	CAP SCR 0.75-10X4.50 HHGR8	4

# ICC Heavy Duty Bumper - PN 46809

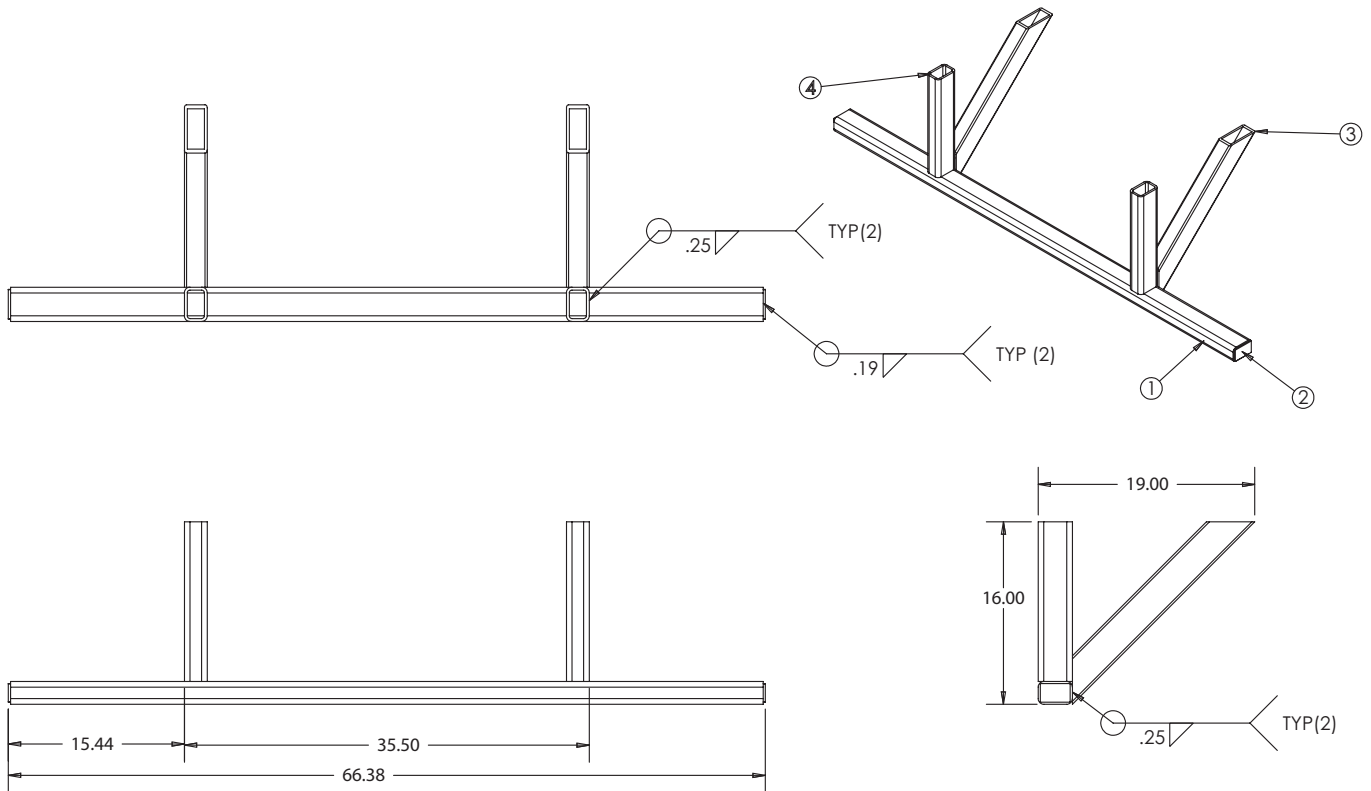


## PN 46809

ITEM	PART	DESCRIPTION	QTY.
1	46804	BUMPER WLDMT ICC HEAVY DUTY KPAC	1
2	46877PC	PIVOT BLOCK WLDMT ICC KP60	2
3	5223	NUT 1.25-7 HHGR5 NYLOC	2
4	46810	PIN SNAP LOCK 1.00 KPAC 60-406	2
5	46811	CAP SCR 1.25-7X5.50 HHGR5	2

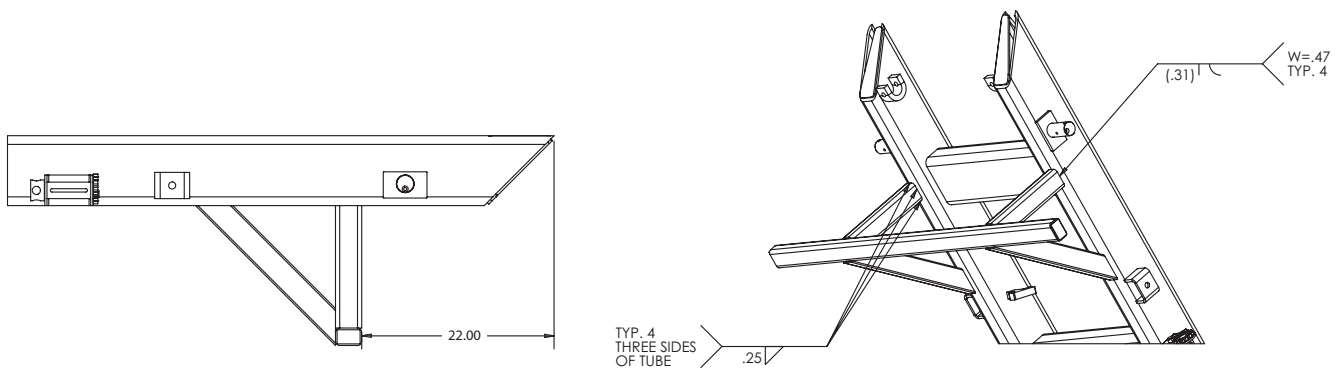


# ICC Bumper Weldment - PN 45574

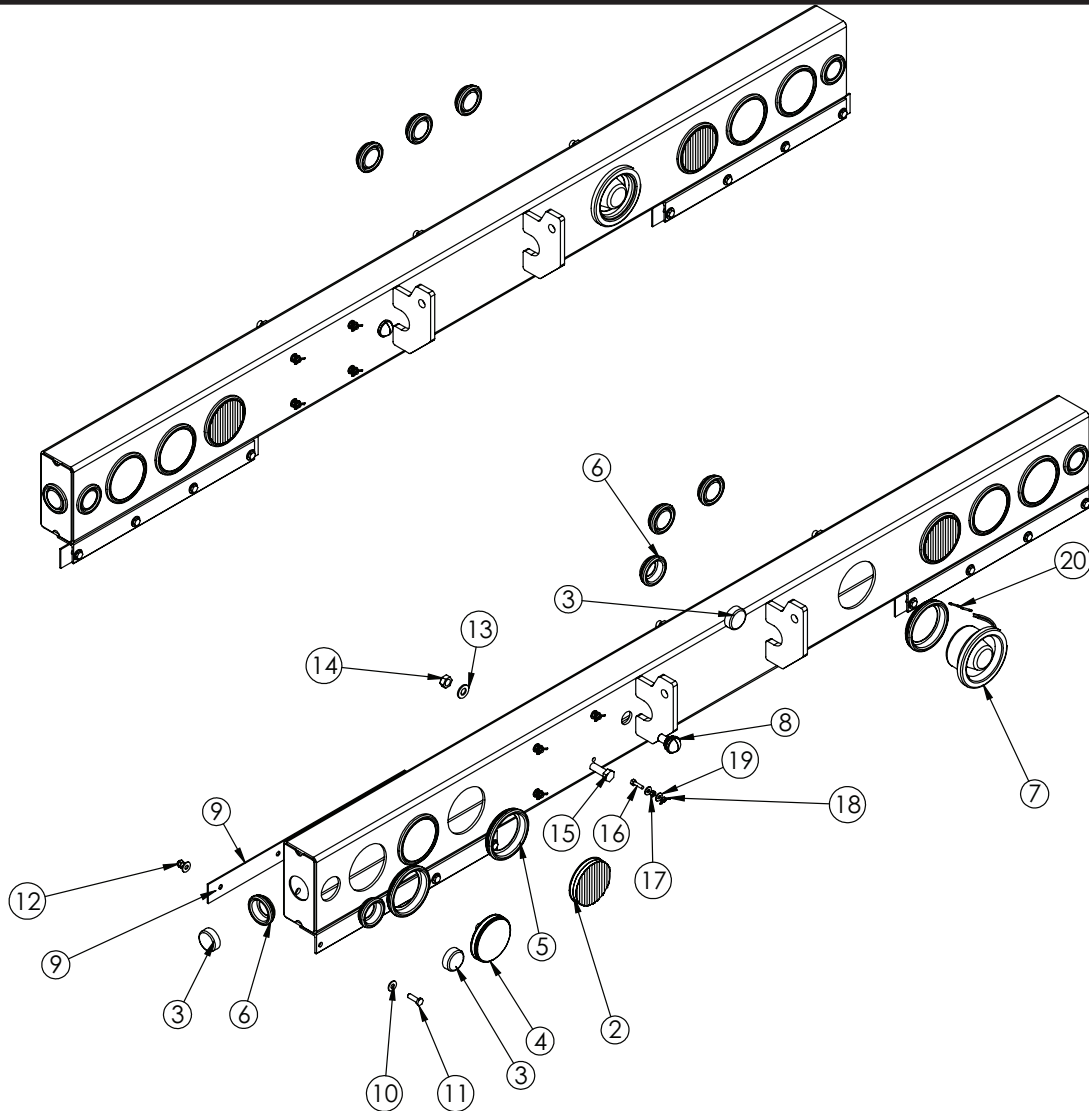


## PN 45574

ITEM	PART	DESCRIPTION	QTY.
1	45572	TUBE 3.00X2.00X0.25WX66.00	1
2	43138	PLATE 0.19X2.63X1.63	2
3	45573	TUBE 3.00X2.00X0.25WX22.63	2
4	21447	TUBE 3.00X2.00X0.25WX14.00	2



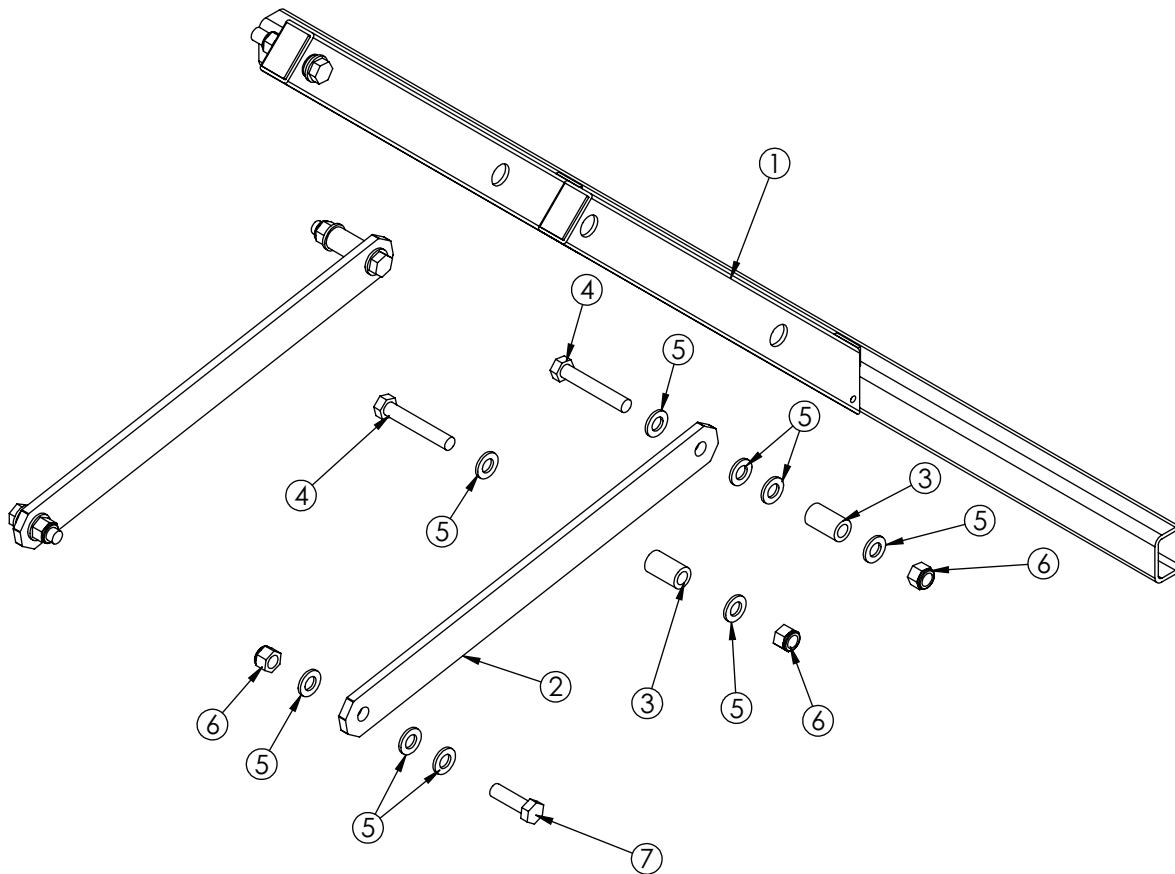
# ICC Standard Narrow Bumper - PN 48848



## PN 48846

ITEM	PART	DESCRIPTION	QTY.
1	48849	BUMPER WLDMT STANDARD KP60 NRW ICC	1
2	27626	LIGHT BACKUP LED 62391	2
3	13145	LIGHT CLEARANCE RED RND 2 LED	7
4	13143	LIGHT STOP/TURN/TAIL 4 RND LED	4
5	10334	GROMMET 4.00 ROUND LAMP (PETERSON)	7
6	C4862	GROMMET FOR 2 CLEARANCE 30700	7
7	18742	BACKUP ALARM ACORN 97 DECIBAL	1
8	2320	LICENSE PLATE LIGHT ROUND 430 W	1
9	45039PC	PLATE MUD FLAP BACKING 43" FENDER KP	2
10	0346	WASHER 0.38 FLAT	16
11	0335	CAP SCR 0.38-16X1.25 HHGR5	8
12	0347	NUT 0.38-16 HH NYLOC	8
13	C5902	WASHER 0.63 SAE FLAT YELLOW GR8	12
14	24868	NUT 0.63-11 HHGR8 NYLOCK ZY	6
15	11693	CAP SCR 0.63-11X1.75 HHGR8	6
16	0480	CAP SCR 0.25-20X1.00 HHGR5	4
17	0533	NUT 0.25-20 HH	4
18	0654	NUT 0.25-20 WING	4
19	0340	WASHER 0.25 FLAT	8
20	C0073	TERML 16-14 BLUE BUTT WATER TIGHT	2

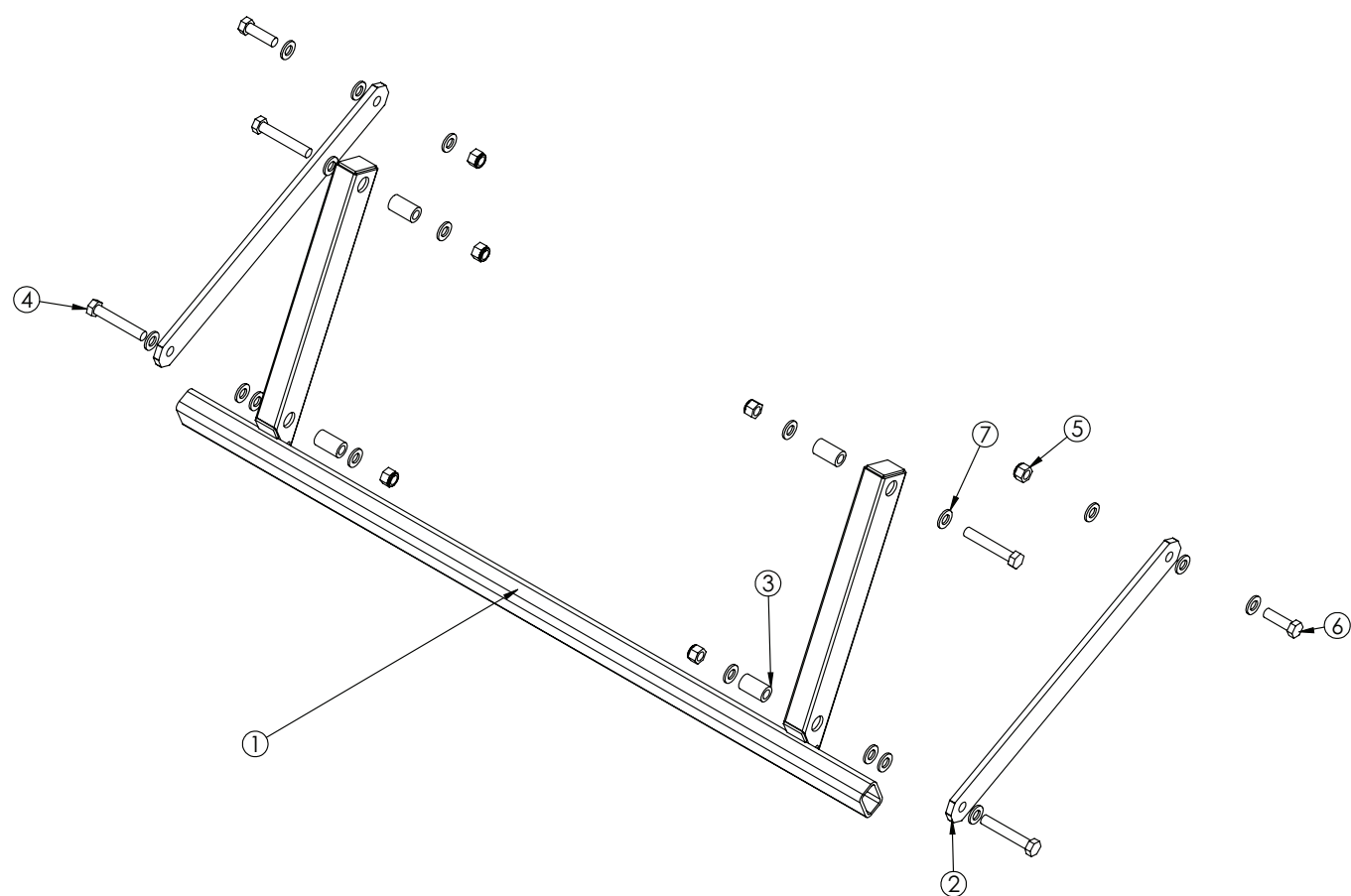
# ICC Narrow Bumper - PN 48846



## PN 48846

ITEM	PART	DESCRIPTION	QTY.
1	48847	BUMPER WLDMT ICC NARROW KPAC	1
2	45813PC	PLATE LINK ICC BUMPER	2
3	45815	SPACER 1.25ODX0.75IDX2.16	4
4	5841	CAP SCR 0.75-10X4.50 HHGR8	4
5	C6219	WASHER 0.75 SAE FLAT YELLOW GR8	18
6	C0538	NUT 0.75-10 HHGR8 NYLOC	6
7	58681	CAP SCR 0.75-10X2.50 HHGR8	2

# ICC Extendable Bumper - PN 62663

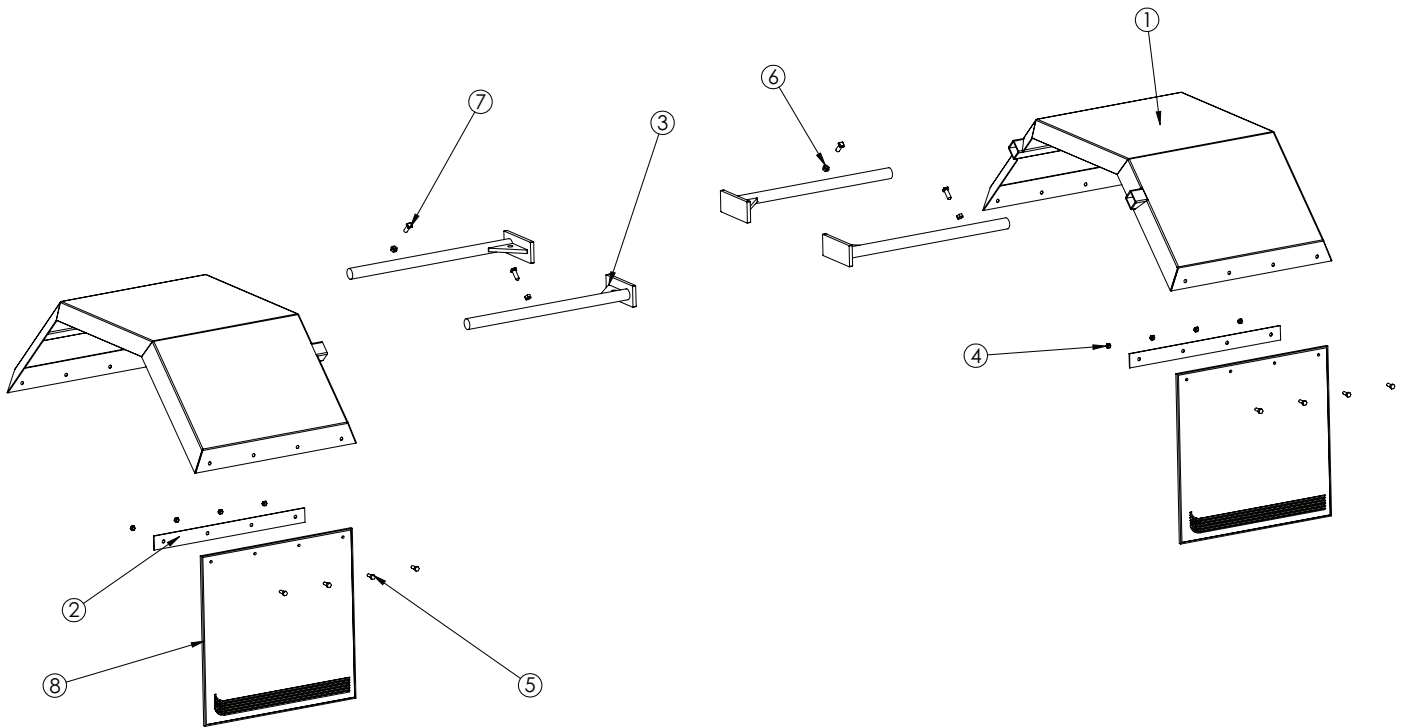


**PN 62663**

ITEM	PART	DESCRIPTION	QTY.
1	62664PC	BUMPER WLDMT ICC STANDARD EXT	1
2	45813PC	PLATE LINK ICC BUMPER	2
3	45815	SPACER 1.25ODX0.75IDX2.16	4
4	45623	CAP SCR 0.75-10X4.50 HHGR5	4
5	C0538	NUT 0.75-10 HHGR8 NYLOC	6
6	58681	CAP SCR 0.75-10X2.50 HHGR8	2
7	C6219	WASHER 0.75 SAE FLAT YELLOW GR8	18

# Tri-Axle Fenders - PN 46299

**NOTE: Includes PN 46122 Tandem Fenders**

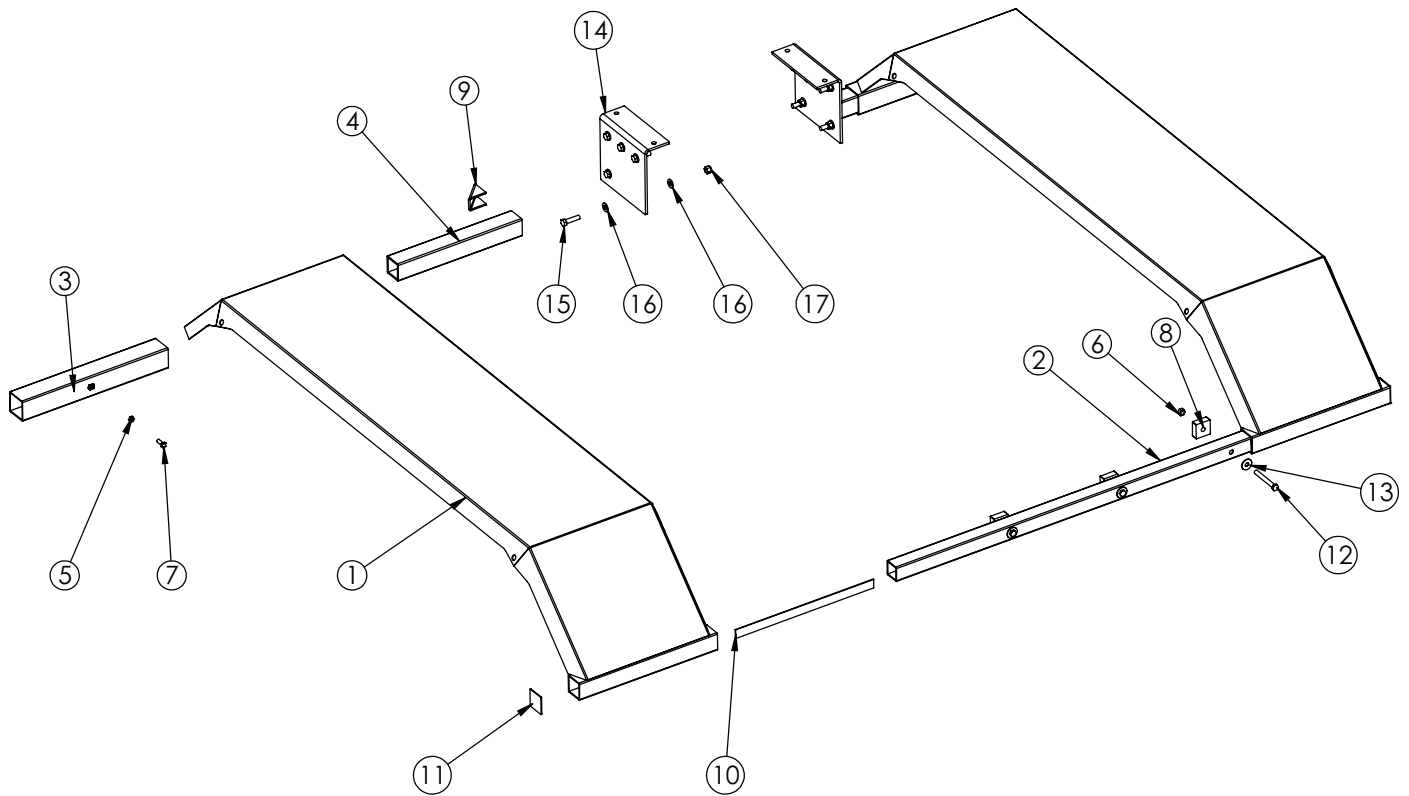


## PN 46299

ITEM	PART	DESCRIPTION	QTY.
1	46626	STD FEND WELDMENT-48"	2
2	45039PC	PLATE MUD FLAP BACKING 43"FENDER KP	2
3	46627PC	FENDER SUPPORT WELDMENT	4
4	0347	NUT 0.38-16 HH NYLOC	8
5	0351	CAP SCR 0.38-16X1.00 HHGR5	8
6	0537	NUT 0.50-13 HH	4
7	46590	CAP SCR 0.50X1.50 SQ HD CP SS	4
8	C4821	MUD FLAP 24.00X24.00 STELLAR	2

**NOTE: MUD FLAPS ARE ONLY INCLUDED WITH A FACTORY INSTALLATION**

## Tandem Fenders - PN 46122

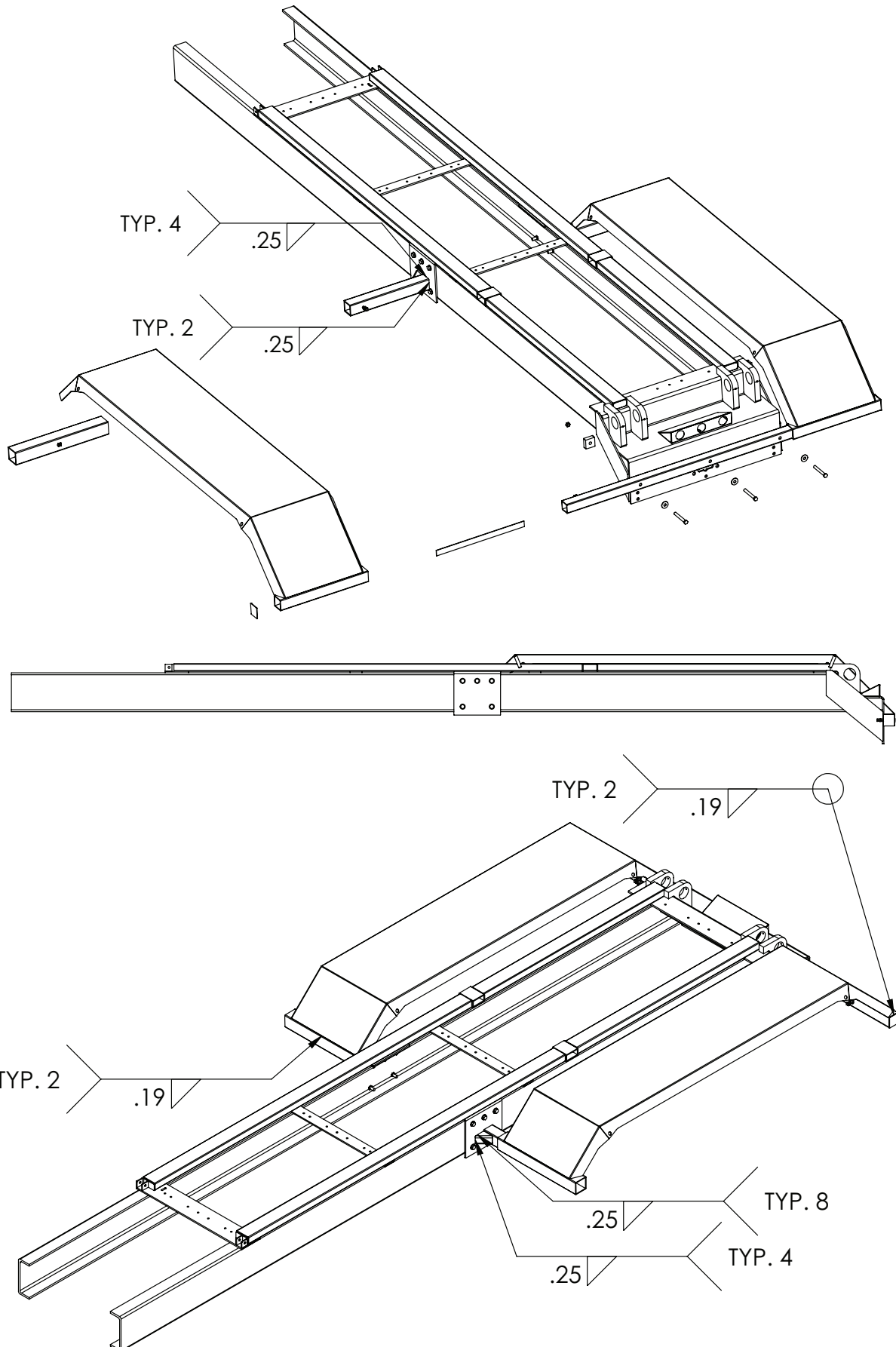


### PN 46122

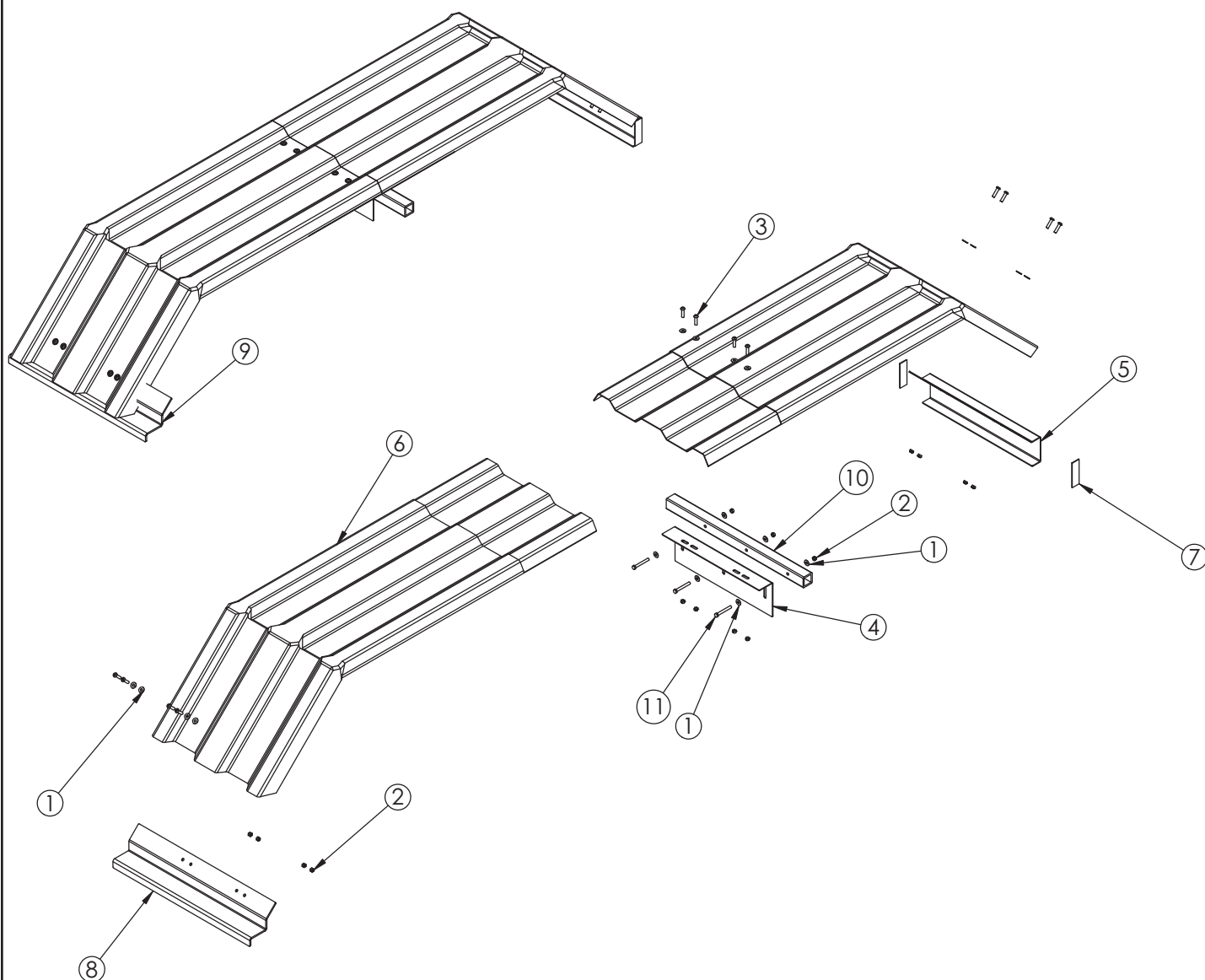
ITEM	PART	DESCRIPTION	QTY.
1	46121	WLDMT FENDER STEEL TANDEM KP60	2
2	46120PC	TUBE REAR FENDER SUPPORT	1
3	46119PC	WLDMT TUBE FRONT FENDER	2
4	46117PC	TUBE FRONT FENDER SUPPORT	2
5	0537	NUT 0.50-13 HH	4
6	2826	NUT 0.63-11 HH NYLOC	3
7	46590	CAP SCR 0.50X1.50 SQ HD CP SS	4
8	47208PC	PLATE 1.00X2.50X2.50 SPACER KP60	3
9	47209	BRKT FENDER KP60	2
10	47210	FLAT 0.13X1.50X24.50 HR	2
11	47211	CAP 0.13X3.00X2.88 FENDER KP60	2
12	C0966	CAP SCR 0.63-11X5.00 HHGR5	3
13	C1038	WASHER 0.63 FLAT	3
14	46906PC	BRKT GANTRY MNT KPAC	2
15	C1026	CAP SCR 0.63-11X2.50 HHGR8	10
16	C5902	WASHER 0.63 SAE FLAT YELLOW GR8	20
17	24868	NUT 0.63-11 HHGR8 NYLOC	10



# Tandem Fenders - PN 46122 Continued...

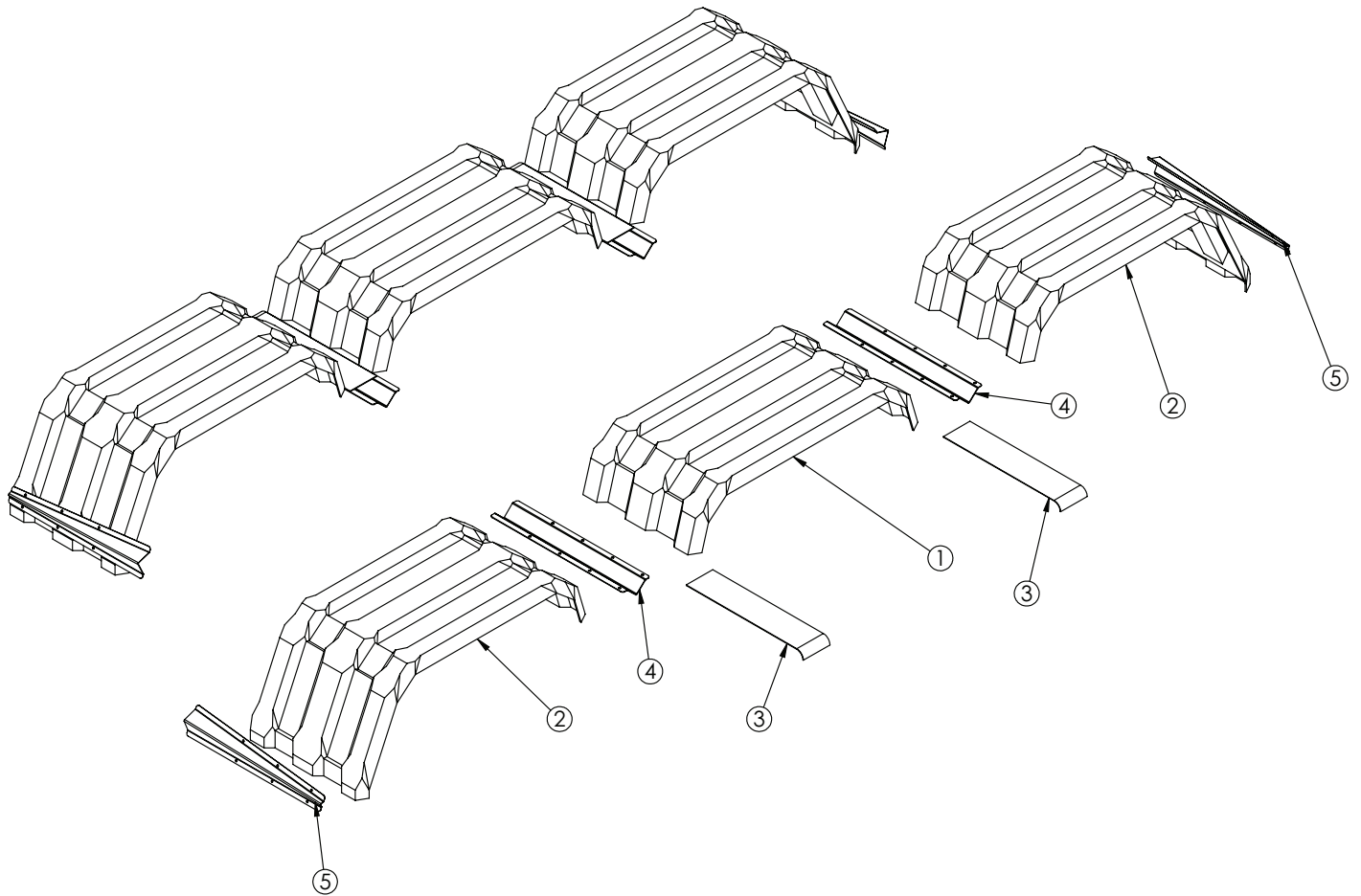


# Tandem Poly Fenders - PN 45795



ITEM	PART	DESCRIPTION	QTY.
1	0346	WASHER 0.38 FLAT	36
2	0347	NUT 0.38-16 HH NYLOC	30
3	10682	CAP SCR 0.38-16X1.50 BTNHD SOCKT SS	24
4	45565PC	BRKT FENDER MNT CNTR KPAC TAND POLY	2
5	45566PC	BRKT FENDER MNT REAR KPAC TAND POLY	2
6	45567	FENDER TANDEM HALF KPAC POLY	4
7	45568	FLAT 0.13X1.50X4.63	4
8	45569PC	BRKT FENDER MNT FRRH KPAC TAND POLY	1
9	45570PC	BRKT FENDER MNT FRLH KPAC TAND POLY	1
10	45571PC	TUBE 2.00X2.00X0.25WX29.88	2
11	C0949	CAP SCR 0.38-16X3.00 HHGR5	6

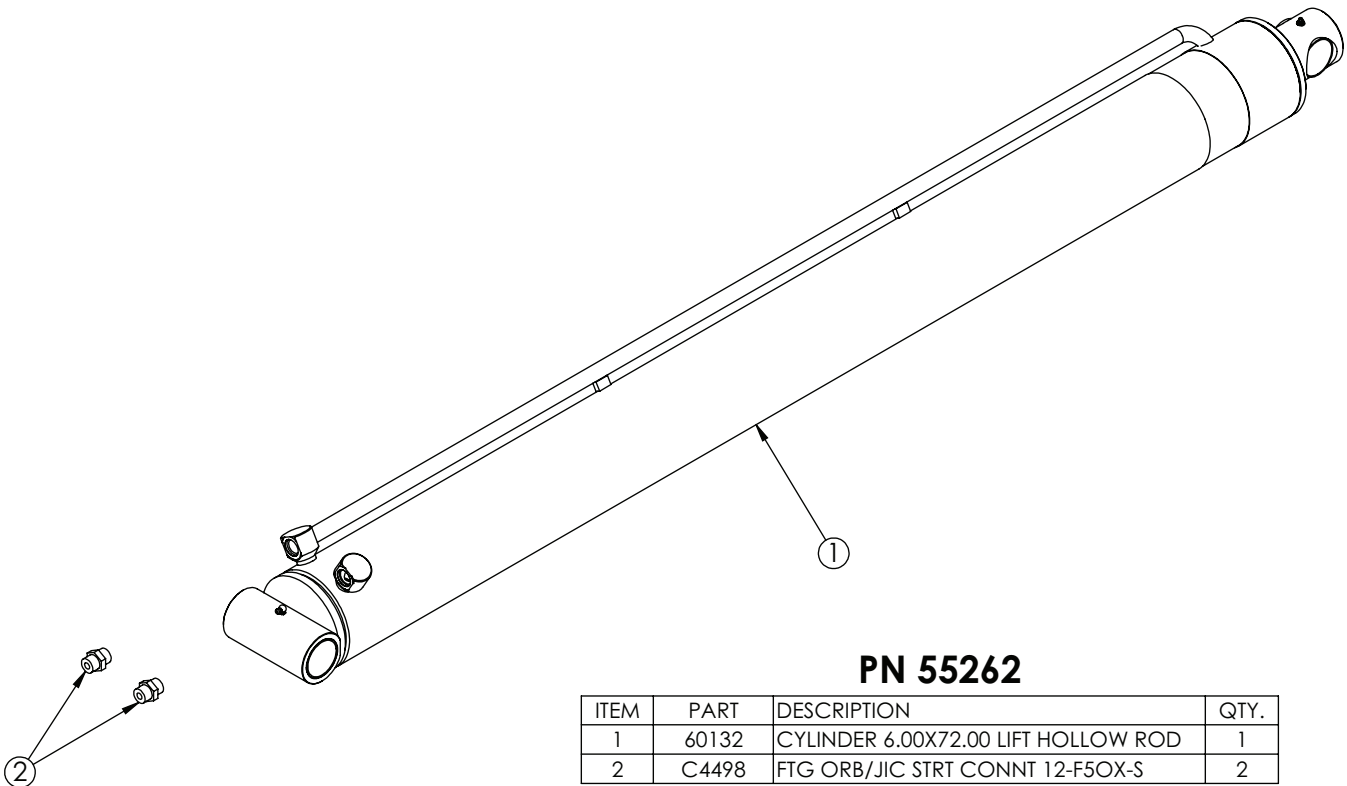
# Tri-Axle Poly Fenders - PN 45893



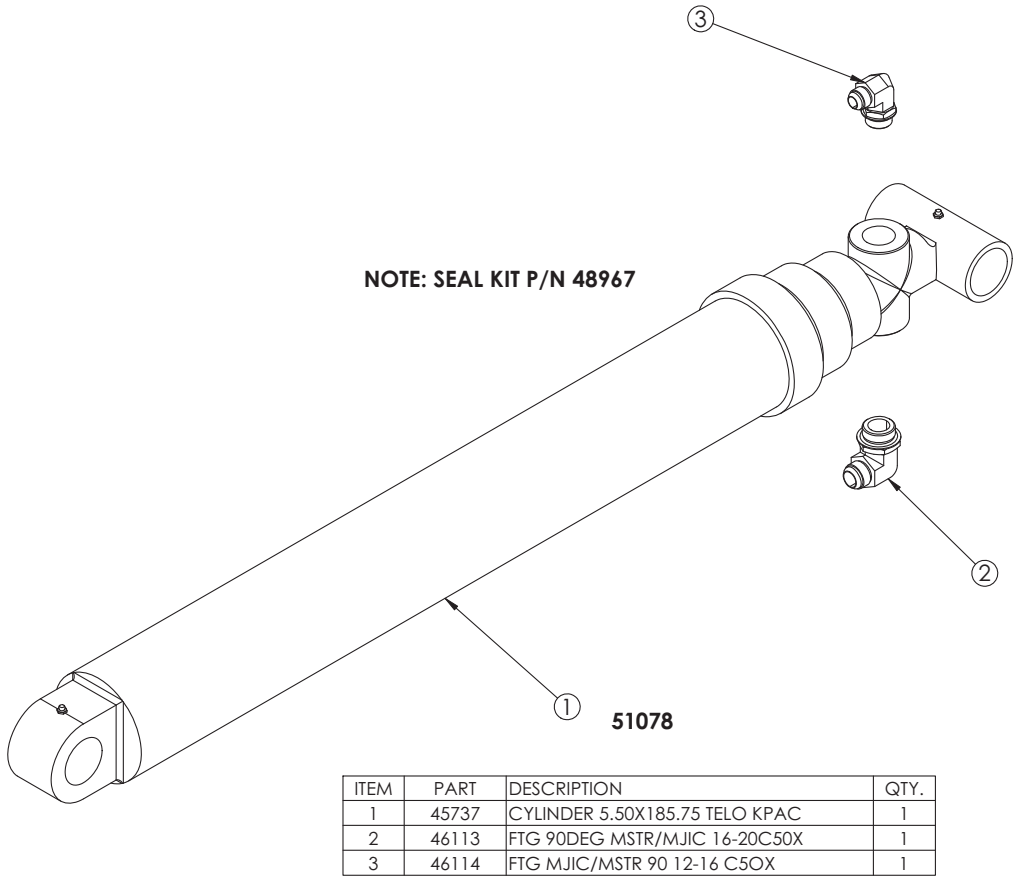
## PN 45893

ITEM	PART	DESCRIPTION	QTY.
1	45891	FENDER TRI-AXLE MIDDLE POLY KPAC	1
2	45890	FENDER TRI-AXLE FRNT/REAR POLY KPAC	2
3	59596	FENDER TRI-AXLE TRIM PLATES POLY	4
4	45892	PLATE FORMED BRKT CNTR TRI POLY FENDER KPAC (QTY 4 INCLUDED IN KIT 45892)	4
5	45892	PLATE FORMED BRKT TAPERED POLY FENDER KPAC (QTY 4 INCLUDED IN KIT 45892)	4

# Standard Lift Cylinder - PN 55262

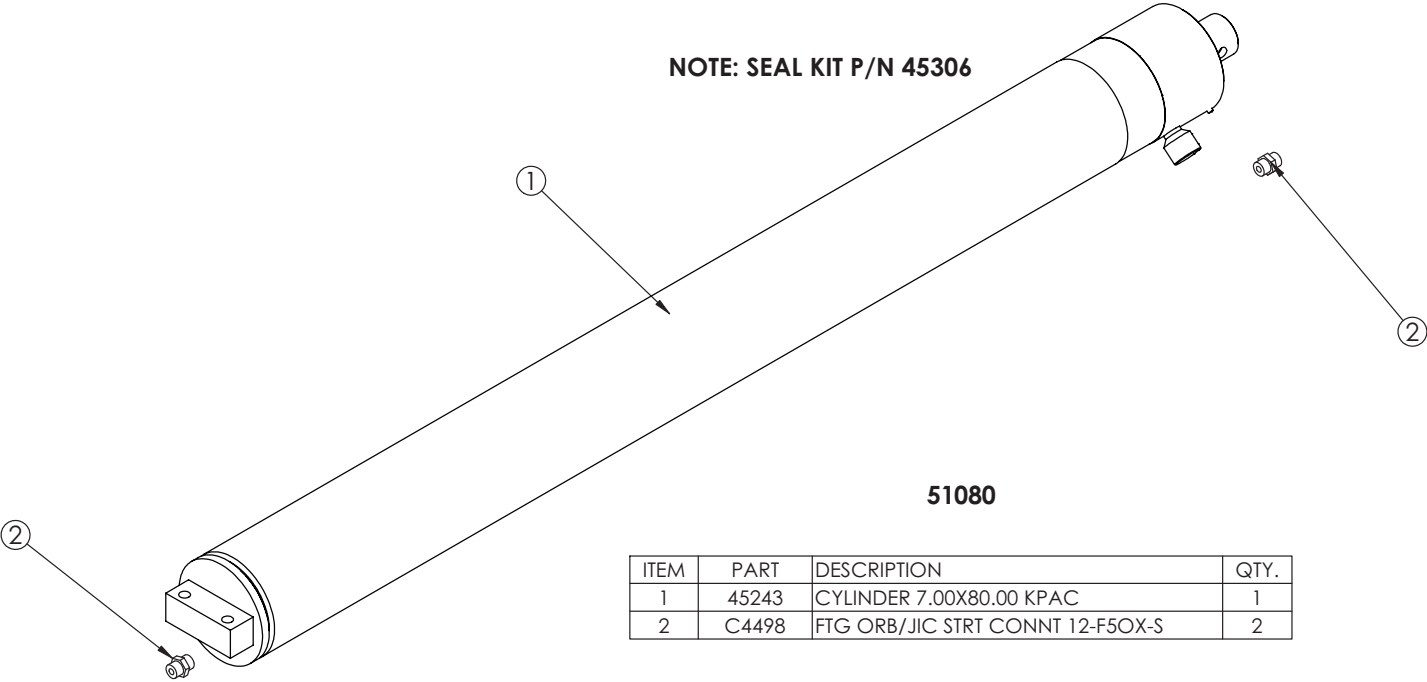


# Telescopic Lift Cylinder - PN 51078



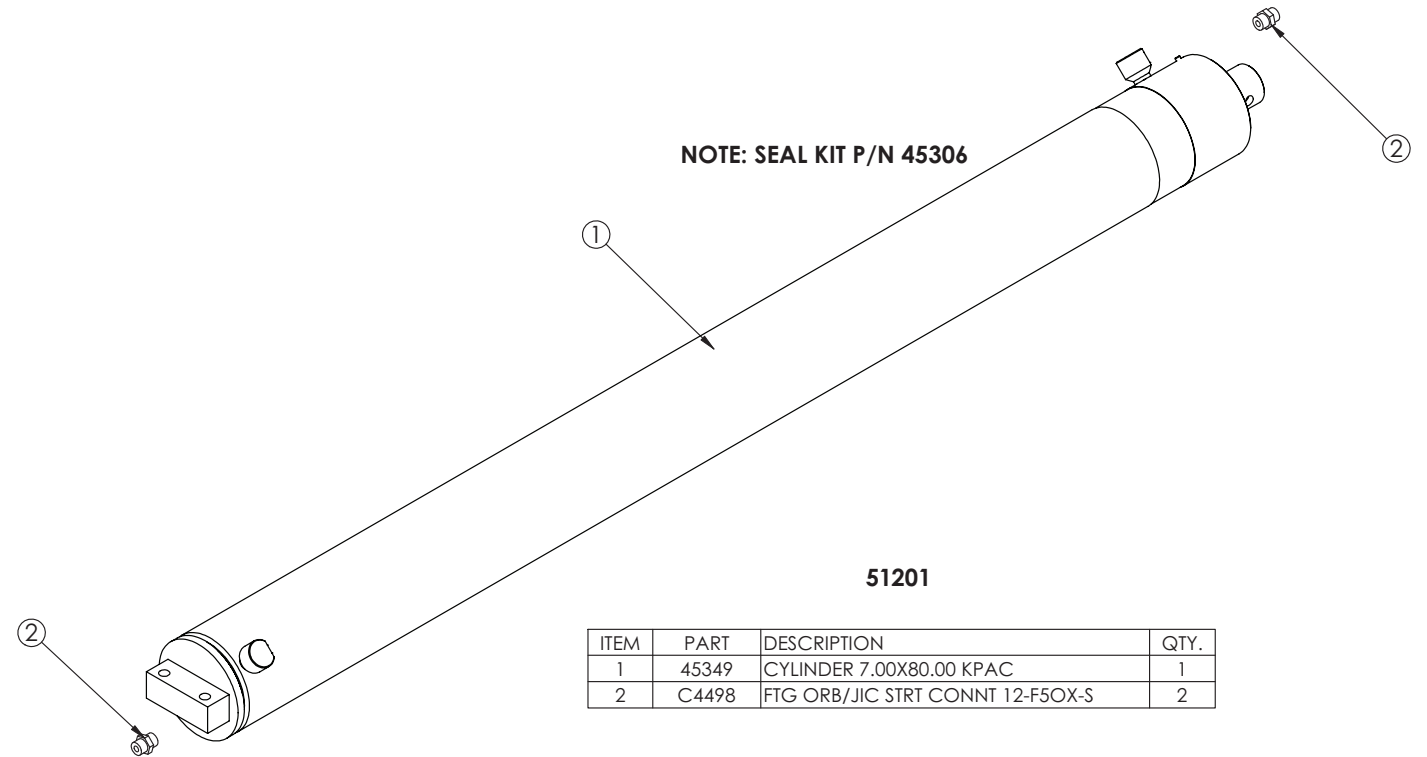
# Standard Reeving Cylinder - PN 51080

174 and 182 Models



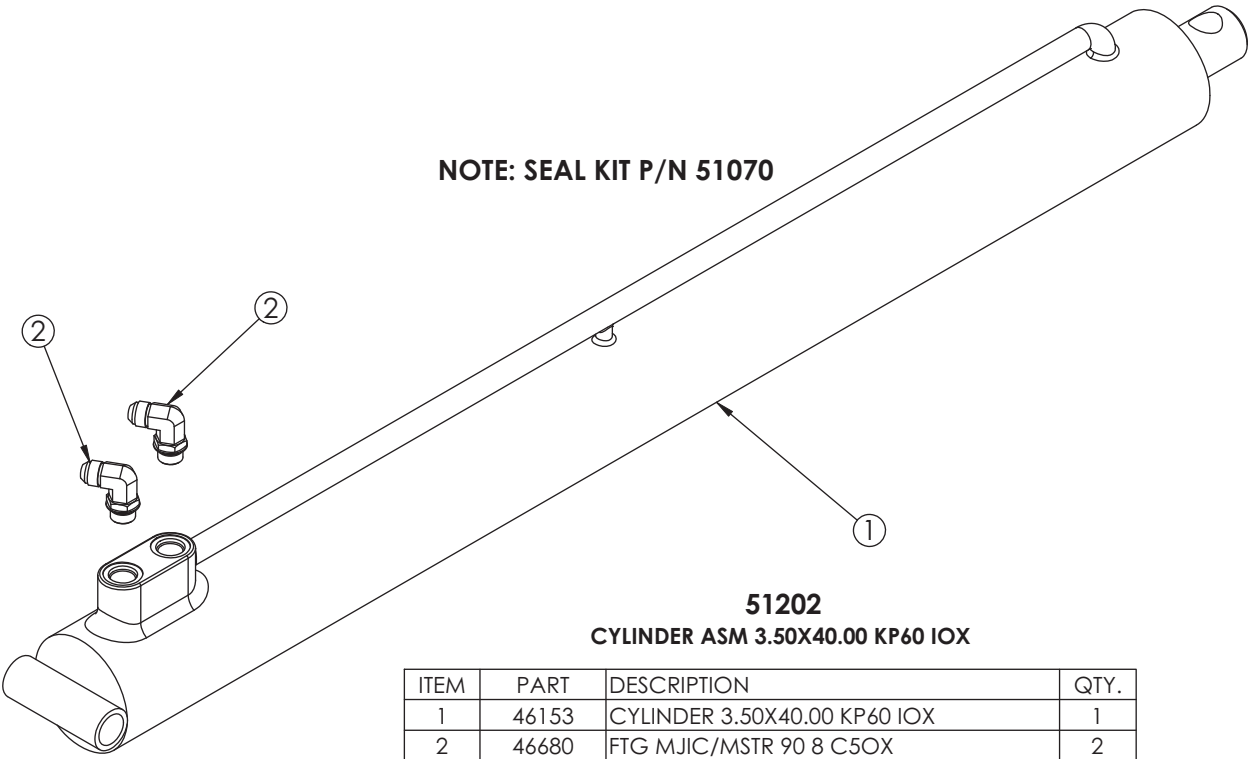
# Long Reeving Cylinder - PN 51201

194 Models



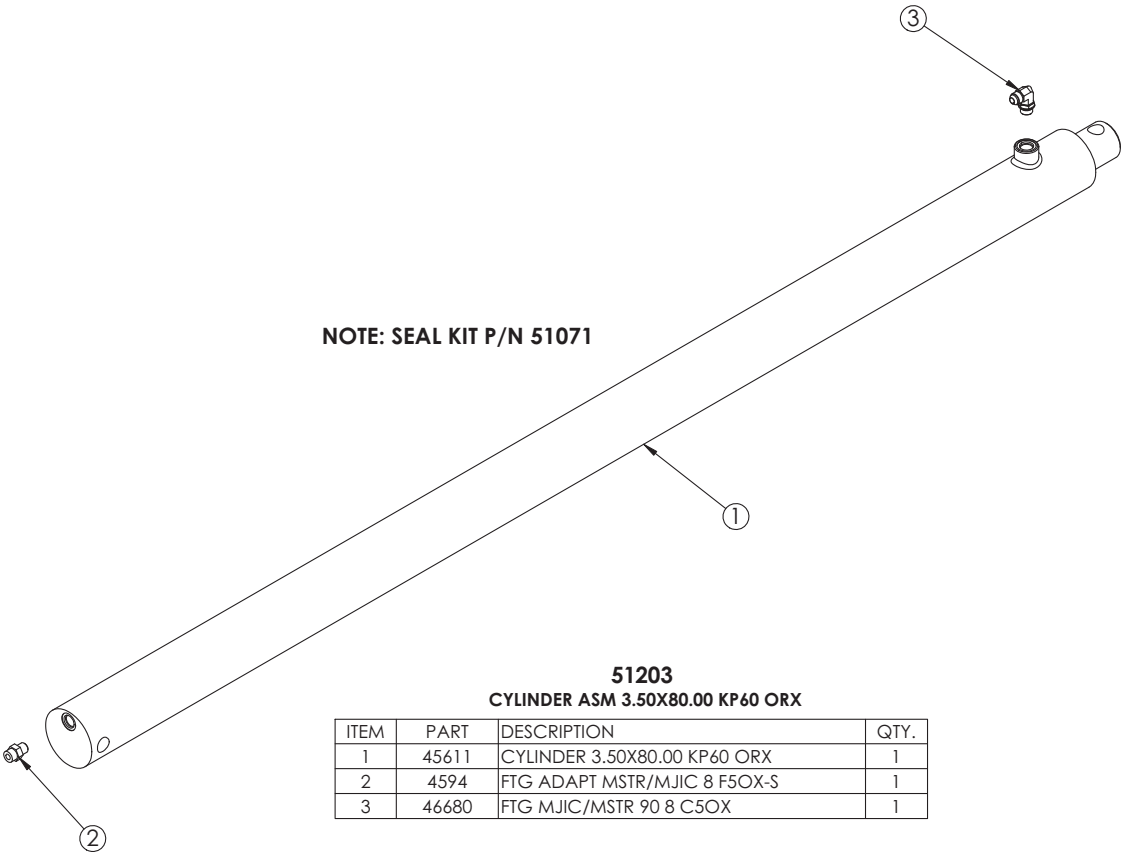
# Tail Extension Cylinder - PN 51202

IOX Models

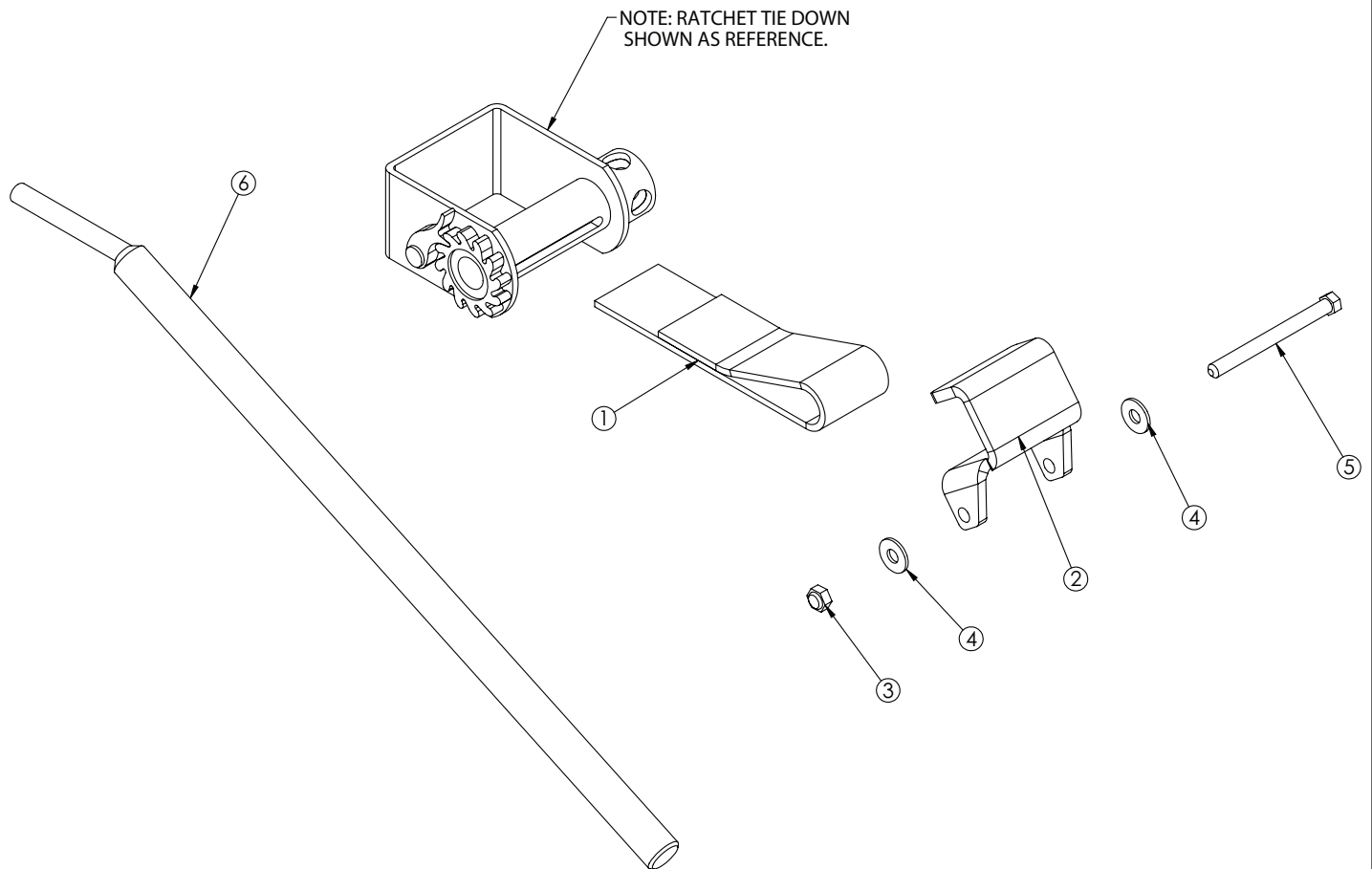


# Tail Extension Cylinder - PN 51203

ORX Models



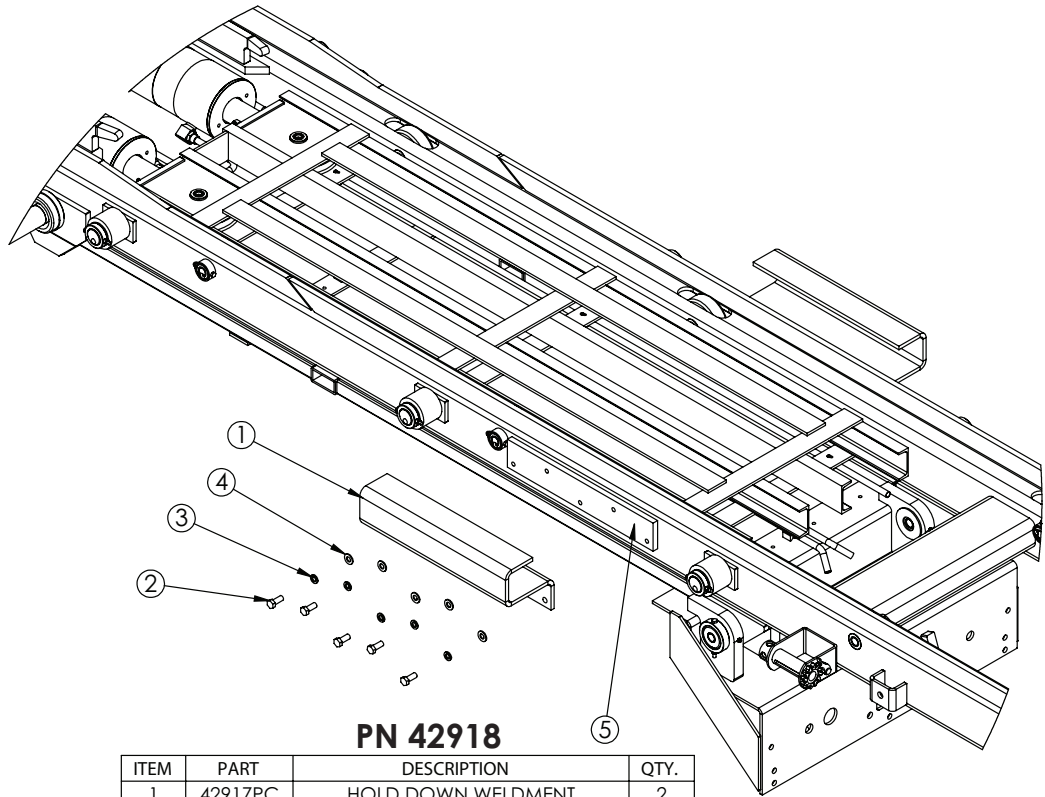
# Ratchet Strap Kit - PN 63150



## PN 63150

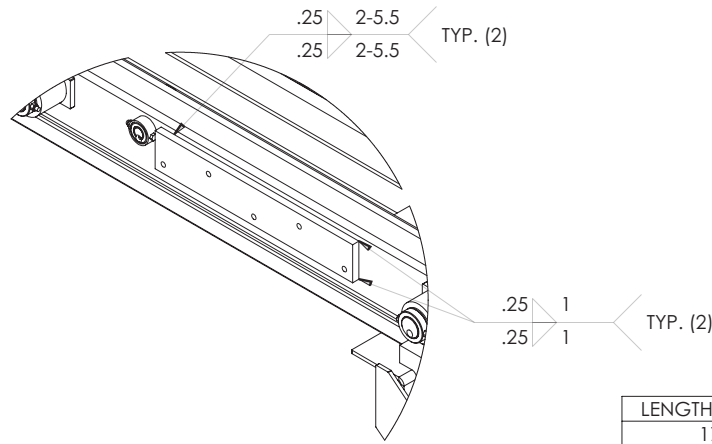
ITEM	PART	DESCRIPTION	QTY.
1	45496	STRAP 3X36 W/LOOP KPAC	1
2	45497PC	STRAP HOOK (HOLD-DOWN) KPAC	1
3	C6106	NUT 0.50-13 HHGR5 NYLOC	1
4	0352	WASHER 0.50 USS FLAT ZINC	2
5	C1001	CAP SCR 0.50-13X5.50 HHGR5	1
6	45895	WINCH BAR STANDARD	1

Bolted Hold Down (Optional) - PN 42918

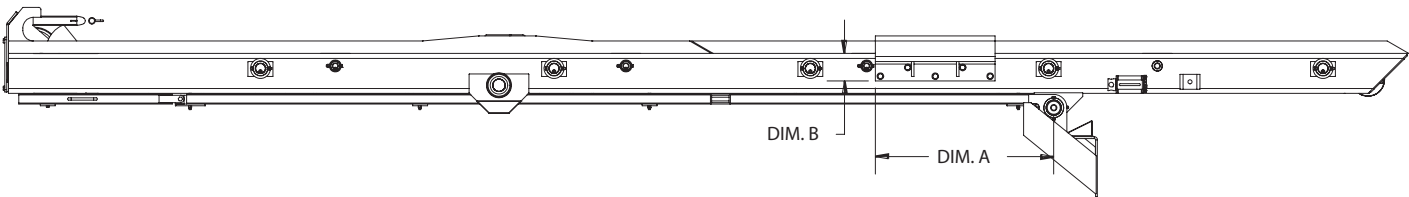


**PN 42918**

ITEM	PART	DESCRIPTION	QTY.
1	42917PC	HOLD DOWN WELDMENT	2
2	0356	CAP SCR 0.63-11X1.50 HHGR8	10
3	0526	WASHER 0.63 LOCK	10
4	C5902	WASHER 0.63 SAE FLAT YELLOW GR8	10
5	45859	FLAT TAP HOLD DOWN KP60	2



LENGTH/MODEL	DIM. A	DIM. B
174	35.75"	
182/194	43.75"	
IO		5.50"
OR		8.00"





# Chapter 9 - Replacement Parts

## Hydraulic Components

Part number	Description
15463	Thermo Sight gauge
45074	Breather cap - Fill neck
15464	Tank cover - Clean out
C6327	Filter strainer
45332	Filter element
45503	Relief valve
45343	Cylinder 6.00" x 72.00" Lift
45749	Cylinder seal kit (45343) 6.00 x 72.00
45737	Cylinder - Telescopic 5.50" x 185.75" Lift
48967	Cylinder seal kit (45737) 5.50" x 185.75"
45243	Cylinder - Standard Reeving model 174 & 182 SI60 7.00" X 80.00"
45306	Cylinder seal kit (45243 & 45349) 7.00" x 80.00" 174, 182, & 194
45349	Cylinder - Long Reeving model 194 SI60 7.00" X 80.00" Long
46153	Cylinder - Tail Extension SI60 IOX model hoists 3.50" x 40.00"
51070	Cylinder seal kit (46153) 3.50" x 40.00"
45611	Cylinder - Tail Extension SI60 ORX model hoists 3.50" x 80.00"
51071	Cylinder seal kit (45611) 3.50" x 80.00"

## Cable Hoist Components

Part number	Description
45372PC	Collar retaining 2.75x2.03x0.75
0427	Machine Washer 2.00ID 10ga.
1589	Machine Washer 3.00ID 14ga.
C1592	Grease Zerk 1/8 NPT straight
45373	Roller 4.00" outside SI60
45564	Roller - Rear Assembly SI60
45304	Roller 6.00" SI60 Inside
45481	Shaft - Vertical sheave
45523	U-Bolt Clamp 0.88" SI60
46905	U-Bolt Clamp 1.00" SI75
45556	Cable asm - Reeving cylinders 0.88" x 71 ft
45500	Cable asm - Reeving cylinders 0.88" x 81 ft
45410	Cable end casting SI60
45411	Cable end - 0.88"
46604	Cable end - 1.00"
42393	Spring
45114	Reeving Sheave weldment SI60
46712	Reeving Sheave weldment SI75
45138	Pin sheave and cable shaft
45139	Sheave 10" - cable asm SI60
45583	Strap weldment cylinder reeving SI60
49565	U-Bolt 0.50" x 6.75"w x 7.88"
47277	Removable stop - OR model Cable hoists
47276	Removable stop - OR model Cable hoists
47272	Intermediate stop - IO Fold down stop
45621	Intermediate stop - OR Fold down stop

## Chassis Mounted Components

Part number	Description
45600	Mount Brkt - Truck frame lug SI60
47531	Pin - Pivot
45144	Pin - 2.50" drop shaft SI60
45756PC	Collar 2.51x3.25x1.50 w/hole

## Controller & Electrical Components

Part number	Description
46734	Controller - Straight No Lock
42399	Controller - Joystick
47471	Controller - Pneumatic
49580	Controller - 2 section Pneumatic
45159	Air Actuator (V42)
45798	Handle kit - 2 section VB
D1810	Air Line for air controllers
45907	Switch - Remote SI60
45908	Light - Dump up
46658	Control Cable 108"
46713	Control Cable 156"
47284	Control Cable 252"
46291	Cable connection kit (V20)

## Rear Bumper Components

Part number	Description
13143	Light - Stop/Turn/Tail 4" Round LED
27626	Light - Back up LED
13145	Light - Clearance (Red) 2" Round LED
13144	Light - Clearance (Amber) 2" Round LED
2320	Light - License plate
18742	Back up Alarm
45813PC	Flat link - ICC Bumper
45815PC	Spacer 1.25"OD x 0.75"ID x 2.16"
46810	Pin snap lock - 1.00" ICC Heavy duty bumper

## Under Body Tool Box Components

Part number	Description
23759	Latch - Door
23764	Latch Gasket - Door
33914	Door roller asm for 1 side Includes 4110, 22045, 4166, 4659
4410	Roller OH door
22045	Bracket - Roller OH door
4166	Cap Screw - Shoulder 0.38"
4659	Nut - Center lock 0.38"
4183	Angle - UHMW RH
4167	Angle - UHMW LH

## Fender Components

Part number	Description
46626	Fender Weldment - Standard 48"
46121	Fender Weldment - Steel Tandem SI60
45567	Fender - Tandem Poly SI60 Half
45891	Fender - Tri-Axle Middle section Poly
45890	Fender - Tri-Axle Front & Rear sections Poly
C4821	Mud Flap 24.00" x 24.00" Stellar



Stellar Industries, Inc. (Stellar) warrants products designed and manufactured by Stellar to be free from defects in material and workmanship under proper use and maintenance. Products must be installed and operated in accordance with Stellar's written instructions and capacities. This warranty shall cover the following:

**Stellar Cranes, Stellar Hooklift Hoists, Stellar Cable Hoists, Stellar Container Carriers, Stellar Service Trucks, and Stellar X-Tra-Lift Systems:**

*Twelve (12) month warranty on parts from the date recorded by Stellar as the in-service date, not to extend beyond twenty-four (24) months from date of manufacture,*

*Twelve (12) month repair labor from the date recorded by Stellar as the in-service date, not to extend beyond twenty-four (24) month from date of manufacture, and*

*Thirty-six (36) month warranty on all Stellar Manufactured structural parts from the date recorded by Stellar as the in-service date, not to extend beyond forty-eight (48) months from date of manufacture.*

**Stellar Tarper Systems:**

*Twelve (12) month warranty on parts from the date recorded by Stellar as the in-service date, not to extend beyond twenty-four (24) months from date of manufacture and*

*Three (3) month repair labor from the date recorded by Stellar as the in-service date, not to extend beyond fifteen (15) month from date of manufacture.*

The in-service date will be derived from the completed warranty registration card. In the event a warranty registration card is not received by Stellar, the factory ship date will be used.

Stellar's obligation under this warranty is limited to, and the sole remedy for any such defect shall be, the repair and/or replacement (at Stellar's option) of the unaltered part and/or component in question. Stellar after-sales service personnel must be notified by telephone, fax, or letter of any warranty-applicable damage within fourteen (14) days of its occurrence. If at all possible, Stellar will ship the replacement part within 24-hours of notification by the most economical, yet expedient, means possible. Expedited freight delivery will be at the expense of the owner.

Warranty claims must be submitted and shall be processed in accordance with Stellar's established warranty claim procedure. Stellar after-sales service personnel must be contacted prior to any warranty claim. A return materials authorization (RMA) account number must be issued to the claiming party prior to the return of any warranty parts. Parts returned without prior authorization will not be recognized for warranty consideration. All damaged parts must be returned to Stellar freight prepaid; freight collect returns will be refused. Freight reimbursement of returned parts will be considered as part of the warranty claim.

Warranty service will be performed by any Stellar new equipment distributor, or by any Stellar-recognized service center authorized to service the type of product involved, or by the Stellar factory in the event of a direct sale. At the time of requesting warranty service, the owner must present evidence of date of delivery of the product. The owner shall be obligated to pay for any overtime labor requested of the servicing company by the owner, any field service call charges, and any towing and/or transportation charges associated with moving the equipment to the designated repair/service provider.

All obligations of Stellar and its authorized dealers and service providers shall be voided if someone other than an authorized Stellar dealer provides other than routine maintenance service without prior written approval from Stellar. In the case repair work is performed on a Stellar-manufactured product, original Stellar parts must be used to keep the warranty in force. The warranty may also be voided if the product is modified or altered in any way not approved, in writing, by Stellar.

The owner/operator is responsible for furnishing proof of the date of original purchase of the Stellar product in question. Warranty registration is the ultimate responsibility of the owner and may be accomplished by the completion and return of the Stellar product registration card provided with the product. If the owner is not sure of registration, he is encouraged to contact Stellar at the address below to confirm registration of the product in question. This warranty covers only defective material and workmanship. It does not cover depreciation or damage caused by normal wear and tear, accident, mishap, untrained operators, or improper or unintended use. The owner has the obligation of performing routine care and maintenance duties as stated in Stellar's written instructions, recommendations, and specifications. Any damage resulting from owner/operator failure to perform such duties shall void the coverage of this warranty. The owner will pay the cost of labor and supplies associated with routine maintenance.

The only remedies the owner has in connection with the breach or performance of any warranty on the Stellar product specified are those set above. In no event will Stellar, the Stellar distributor/dealer, or any company affiliated with Stellar be liable for business interruptions, costs of delay, or for any special, indirect, incidental, or consequential costs or damages. Such costs may include, but are not limited to, loss of time, loss of revenue, loss of use, wages, salaries, commissions, lodging, meals, towing, hydraulic fluid, or any other incidental cost.

All products purchased by Stellar from outside vendors shall be covered by the warranty offered by that respective manufacturer only. Stellar does not participate in, or obligate itself to, any such warranty.

Stellar reserves the right to make changes in design or improvement upon its products without imposing upon itself the same upon its products theretofore manufactured.

This warranty will apply to all Stellar Cranes, Stellar Hooklift Hoists, Stellar Cable Hoists, Stellar Container Carriers, Stellar Service Trucks, Stellar X-Tra-Lift Systems, and Stellar Tarper Systems shipped from Stellar's factory after January 1st, 2010. The warranty is for the use of the original owner only and is not transferable without prior written permission from Stellar.

THIS WARRANTY IS EXPRESSLY IN LIEU OF ANY OTHER WARRANTIES, EXPRESS OR IMPLIED, INCLUDING ANY WARRANTY OF MERCHANTABILITY OR FITNESS FOR A PARTICULAR PURPOSE. REMEDIES UNDER THIS WARRANTY ARE LIMITED TO THE PROVISION OF MATERIAL AND SERVICES, AS SPECIFIED HEREIN. STELLAR INDUSTRIES, INC. IS NOT RESPONSIBLE FOR INCIDENTAL OR CONSEQUENTIAL DAMAGES.